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ABSTRACT

Since speaking a nonstandard dialect is hypothesized to perhaps put a child at a disadvantage in learning to read Standard English or in understanding material expressed in Standard English, the effect of Black English on performance of school tasks was tested in 27 second graders in a Harlem school. They were interviewed and tested to measure their competence in spontaneous speech, oral and written comprehension, oral reading and explicit grammatical knowledge in Standard English morphemes often missing in Black English. The data show large individual differences in ability to use standard forms and low but significant correlation between speech and reading performance. Instruction in use of the standard forms significantly influenced several performances. (Author/LH)

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THE LANGUAGE OF BLACK CHILDREN IN THE EARLY GRADES

Jane W. Torrey

Studies on Developing Competence in Standard English I

These investigations were supported by

U. S. Public Health Service
National Institute of Child Health and Human Development

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and

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February 1972

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Ms. Linda Karpyak performed the comparison study described in Sections VIII and IX.

Abstract

Speaking a nonstandard dialect might be expected to put a child at a disadvantage in learning to read Standard English or in understanding material expressed in Standard English. To test the effect of Black English on performance of school tasks 27 second graders in a Harlem school were interviewed and tested to measure their competence in spontaneous speech, oral and written comprehension, oral reading and explicit grammatical knowledge in Standard English morphemes often missing in Black English. The data show large individual differences in ability to use standard forms and low but significant correlation between speech and reading performance. Instruction in use of the standard forms significantly influenced several performances.

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The Language of Black Children in the Early Grades

Introduction

The relatively low educational achievement of children in urban slums has been ascribed to their poor command of language (e.g., Deutsch, 1963). When standard tests of language development showed lower scores for poor children than for the middle class, psychologists and educators regarded this as evidence of a deficiency and sought an explanation for it either in hereditary racial differences or, more often, in some kind of "cultural deprivation" resulting from the life style of poverty. Early childhood education programs for the poor emphasized language training in order to overcome the supposed deficit and prepare the children to make better use of the opportunity for education provided by the schools.

On the other hand Labov's (1968) linguistic studies of black youth who were poor showed a wealth of linguistic skill in boys who were failing in school, but the skill was expressed in a dialect systematically different from the Standard English of the white middle class community. His description of this dialect showed that it has phonological and grammatical characteristics likely to be interpreted as errors or as evidence of retarded development by speakers of Standard English who are unaware of dialect differences. Such linguistic findings have led some to argue that the educational difficulties of black children are not due to any deficiencies, but primarily to dialect differences (e.g., Baratz, 1970). She points out that these linguistic

differences tend to be socially stigmatized, so that teachers may treat the black children's dialect as bad or inferior, and the difference may also create problems for the child in understanding the teacher and the educational materials. Those black children whose dialect is likely to be most different from standard are the very poor or newly migrated from the country. These are also the most likely to feel alien from the school and have trouble understanding the content of the lessons.

The purpose of the present study was to show the very specific effects of substandard dialect upon various linguistic performances likely to affect educational achievement, particularly upon understanding of standard grammatical forms that differ from those used by the child.

Nonstandard Negro English has been described by several linguists, including Labov (1968). It differs from Standard English in a number of systematic ways of which only three were selected for the present study because they allowed for control over phonological variables. All involve the required addition of a single sibilant ending to nouns, pronouns, or verbs in Standard English. In Nonstandard Negro English these endings are all used less consistently and by some speakers only rarely, so that Labov attributes various linguistic statuses to these morphemes. The third person singular of present tense verbs requires a sibilant ending in Standard English. Speakers of Nonstandard Negro English use this ending rarely and

inconsistently, for example,

Here come the judge.

Labov has concluded that there is no third singular Z in the underlying structure of their dialect. The possessive inflection is also frequently omitted by speakers of Nonstandard Negro English in the attributive position, that is, when the noun representing the possessor precedes the noun representing the thing possessed. However, in the absolute position, with the possessor coming at the end of the phrase, the possessive inflection is used by nonstandard speakers. Thus,

My grandmother house....

but That house is my grandmother's.

Labov concludes that a possessive Z does occur in Nonstandard Negro English even though its distribution is different from standard. The third sibilant morpheme that distinguishes Standard English from Negro nonstandard is the contraction of the copula "is." (Although the contraction is not technically an inflection, it behaves like the Z inflections phonologically at the end of the preceding subject noun or pronoun.) In Negro nonstandard the copula is often completely deleted in those positions where Standard English allows for contraction.

She wild.

Dat not no man.

That the copula exists in the underlying structure of the dialect is shown by the fact that the full form <u>is</u> occurs

invariably in those positions where contraction is not permitted in Standard English, e.g., "Tell me where it is." Thus Labov considers the omission of the copula to be an extension of the contraction rule of Standard English. A fourth sibilant morpheme, the plural inflection of nouns, is shared by Standard and Nonstandard Negro English. Although both allow for its omission in certain specific contexts, Labov found that plural endings are rarely omitted by blacks, and he attributed to them a grammatical status similar to that in Standard English.

The accidental fact that these four grammatical morphemes have the same phonological form while differing greatly in their relative grammatical status in the two dialects gives the opportunity to study grammatical implications of dialect differences independently of phonological considerations. This control is important since the reduction or omission of final consonants is one of the phonological characteristics of Nonstandard Negro English and the occasional omission of Z endings might be attributed to this rather than to grammatical status if it were not for the fact that the pattern of omission of Z endings is clearly related to grammatical status.

The implications of nonstandard dialect for education should be explored carefully before any conclusion is reached about the importance of using standard English exclusively in school. Baratz' (1970) belief that speakers of nonstandard dialects may have more difficulty than standard speakers in learning to read because written material

conforms more closely to standard spoken English is plausible for several reasons. Dialect differences might inhibit learning of the sound-symbol system and might also lead to misinterpretation of the meaning of written material. In addition, children might have some trouble understanding or being understood by a teacher who spoke only Standard English. In later years, their written work might also appear deficient in terms of standard grammar. However, it remains to be shown that any of the consequences in fact do occur in speakers of nonstandard English. The present study explores several of these possibilities.

The subjects were 27 members of a second grade class in a school in mid-Manhattan attended by children from some very poor neighborhoods and low-income housing projects. All were black English-speaking children of U.S. origin. The children were not a random sample since this group was one of the better, though not the best, second grades in the school. Their language varied from almost standard for some children to quite nonstandard, and this variation gives us the opportunity to study the effects of differences in dialect upon various performances.

I. Description of Tests and Results

Several different linguistic performances were measured to determine the ways in which dialect influences them. The basic measure was the frequency of use of the four sibilant morphemes in the spontaneous speech of the children. Another kind of speech measure was the context-

cue test consisting of responses to specific questions designed by the experimenter to elicit the usages in question. The child's ability to imitate the experimenter's model utterance is still another kind of performance. Understanding was measured by a modification of Fraser, Bellugi, and Brown's test of comprehension and production of grammatical forms in reference to pictures representing their meaning (1963). A similar test using printed phrases tested reading comprehension while oral reading showed the ability to articulate forms represented in print. Finally, the child was asked directly to tell the meaning of the four morphemes to test his explicit grammatical knowledge. We will first describe these tests in some detail and then report upon the way the children performed on each.

Spontaneous Speech

As a basic measure of linguistic competence, the spontaneous speech of the children was recorded during an interview in which two children met for the first time with the experimenter. The experimenter asked questions about their school, play, and television, let them listen to the tape recorder on request, and introduced toys and games designed to stimulate speech and reading. The interview was conducted with two children at a time in order to avoid the linguistically inhibiting conditions that are so common when a strange, especially a white adult tries to talk to a black child in a school setting where most teachers are white (Labov, 1970). The interview was successful in

eliciting apparently relaxed spontaneous informal chatter from some children. Others remained fairly formal, although all said enough to allow for most of the measurements of the four morphemes. All the results should be interpreted in light of the probability that many of the children would speak differently in another social context. The taped conversation of this interview, together with spontaneous speech recorded throughout the series of experimental sessions with each child, was searched for all occasions where each of the four sibilant morphemes would be appropriate, and the score was the percentage of appropriate occasions in which the particular morpheme was used. Uncertain utterances were excluded, so that only clear instances of presence or absence of the sibilant were scored. Table 1 shows the mean percentage of each of the four morphemes. (In this and other tables results are reported in percentages to facilitate comparison even though the base for each individual is very small.) The last column of the table shows a total score representing the percentage of appropriate occasions where any of the three dialect-related morphemes was used. The wide range of dialect use in this single class of 27 children is shown in the second row. Whereas the noun plural inflection is used on almost all occasions by all the children, some almost never use the other morphemes and others use all of them quite consistently. Some children use one or more consistently but not others. The intercorrelations between spontaneous use

Table 1

Spontaneous Speech

Percentage of Appropriate Occasions Where Sibilant Morpheme is Used

N=27

Morpheme	Plural	Verb	Possessive	Copula	Verb Possessive and Copula
Mean	93	44	55	79	64
Range	67-100	0-88	0-100	22-100	14-96

of each morpheme are shown in Table 2. The correlations are statistically significant but still far from perfect. It is clear that there is considerable variation both in the amount of use of nonstandard forms and in the selection of particular forms by an individual. Although all these children are exposed to both standard and nonstandard dialects in different aspects of their lives, their own spontaneous speech shows a wide range of differences in the dialect used in this particular interview situation.

Context-Cue Test

In order to test children's use of the sibilant morphemes in controlled grammatical contexts and to increase frequencies of use for assessment purposes, several devices were used to induce the child to use the appropriate constructions. For the plural, the experimenter showed a picture of several cats (or other things) and asked, "What are these?" To elicit a verb, the experimenter started by saying "A flying nun is a nun that...." pausing with voice raised to allow the child to fill in "...flies" or "...fly." To elicit possessive the experimenter showed pictures again, this time of a person or animal with something he possessed. The experimenter presented the picture and said, "If the girl has an elephant, we say it's the...." If the child did not respond "...girl's elephant" or "...girl elephant," the experimenter added, "...we say it's whose elephant?" To induce a copula the experimenter said, "I'm going to ask a question, and I want you to give me a certain kind of answer. If I ask, 'Is the boy eight?',

Table 2

Intercorrelations of Morpheme Use in Spontaneous Speech

Morpheme	Possessive	Copula
Verb	.41	.59
	N=17 $p>.05$	N=27 $p<.005$
Possessive		.61
		N=17 $p<.005$

you say, 'Yes, the boy's eight.'" After the child learned to give the appropriate response beginning with "Yes....," his responses to different questions showed how often he included the contracted or full copula.

Context-cue items for each morpheme were administered at the beginning and at the end of the experimental series using different words before and after but the same words for all subjects. The test items for the context-cue test of the Z morphemes were matched so that the morphemes occurred in similar phonological contexts to control for any variations in use of the different allomorphs conditioned by features of the preceding phoneme. Table 3 shows that the pattern is similar to but not exactly like that of spontaneous speech. None of the differences between spontaneous and context-induced usages was significant for any individual morpheme nor for the score combining dialect-related morphemes, though all of them show somewhat higher scores for the context-cue test than for spontaneous speech. However, an analysis of variance of dialect-related scores based upon those 21 subjects for whom data were complete showed a significant difference between context-cued and spontaneous speech ($F=8.95$; $p<.01$) across the three morphemes as well as a significant effect of morpheme ($F=22.54$; $p<.001$) and an interaction between the two variables ($F=21.24$; $p<.001$) reflecting the much larger difference between context-cued and spontaneous speech for the possessive than for the copula. Table 4 shows the correlations between context-cued and spontaneous speech scores

Table 3

Context-cue Test

Percentage of Appropriate Occasions Where Sibilant Morpheme Is Used

N=27

Morpheme	Plural	Verb	Possessive	Copula	Verb Possessive and Copula
Mean	94	47	67	77	60
Range	78-100	0-100	0-100	12-100	26-97

Table 4

Correlation between Sibilant Morpheme Use
in Spontaneous Speech and Context-cue Test

Morpheme*	Verb	Possessive	Copula	Verb Possessive and Copula
Correlation	.47**	.58**	.59**	.59**
N	27	17***	27	27

*Because high scores in the plural restrict the range of talent, a correlation would not be comparable to the others.

**$p<.01$ (Tests cited are one-tail except as noted.)

***The N is lower for possessives because several children used too few spontaneously to be scored individually.

for each morpheme. Because spontaneous and context-cued usage are behaviorally similar performances and because the correlations between them are significant, we have used a score combining the two kinds of production in some of our analyses.

Picture-meaning Test

The proportion of standard forms used by a child in our interviews does not necessarily tell us how well he understands Standard English. Not only are children able to use more standard forms then they actually do use in informal situations, but they also have a passive comprehension of many forms they cannot use at all themselves (Labov, 1970). Since understanding is as important for educational purposes as spontaenous production, we have devised a separate test to measure it. We adapted the technique first used by Fraser, Bellugi, and Brown (1963) in which children were shown pictures illustrating the meanings of grammatical features and asked to respond in terms of those meanings. Two grammatical phrases differing only in the presence or absence of a given morpheme were chosen so that their contrasting meanings could be clearly illustrated in a pair of pictures. Table 5 shows the phrases used on the tests. For the plural and singular meanings of nouns and verbs, the two pictures for each pair differed simply in the number of dogs shown eating or sheep pushing. Since the verb inflection also represents present tense, some pairs of pictures differed in that one

Table 5

Phrases for Testing Comprehension of Grammatical Morphemes

Morpheme	Pretest-Posttest	Program Test
Plural	The dog(s) ate. The bird(s) ate. The puppy(s) opened the door. The boy(s) ate.	Street light(s) Green tree(s)
Verb (Singular meaning)	The sheep push(es) the car. The rabbitsplash(es). The catsleep(s). The deer drink(s).	The cat_ eat(s).
Verb (Present meaning)	She let(s) a cat in. She put(s) a picture up. She put(s) a pot down. He shut(s) it.	
Possessive	The prince('s) doctor The witch('s) teacher The man('s) teacher The boy('s) angel	The duck('s) nurse. The farmer (rode. ('s road.
Copula	He (ate. ('s eight. He (won. ('s one. The boy (blew. ('s blue. The duck (read. ('s red. He('s) cut. She('s) pushed.	She('s) cut. She (knew. ('s new.

showed the act still being done and the other showed it completed. For the possessive (Figure 1) one picture represented the duck as a nurse and the other showed a duck being tended by a normal looking nurse, illustrating the difference between The duck nurse and The duck's nurse. The copula questions depended upon either homonym pairs or verbs whose past tense forms were the same as the participles used in passives. The natural redundancy of language makes such minimal pairs hard to devise but not impossible.

To test a child's understanding of an inflection, the experimenter began by making sure the child saw the important difference between the two pictures and then asked him to imitate the two phrases without indicating which phrase went to which picture. Many children spontaneously pointed to or looked at the appropriate picture during this phase. Imitation served to give the child practice with the particular titles he would be asked to use and also to confirm his ability to hear and enunciate the crucial sounds. Next the child was asked to point to the picture called The duck's nurse. In this "comprehension" question the title with the sibilant morpheme was always asked for. After the child pointed to his chosen picture, the experimenter asked, "Now what did we call the other picture?" This required the child to produce the correct name of the picture pointed to by the experimenter. Then the experimenter pointed to the picture

The Duck's Nurse

The Duck Nurse

Fig. 1 Picture-Meaning Test Sample Item

chosen by the child and asked him to name that, too. For most of our analyses the child was credited with showing full understanding of the crucial form only if he answered the comprehension question and both production questions correctly, using the inflection or omitting it appropriately for each picture.

Each subject responded to two pairs of pictures for each morpheme in the pretest phase, up to two during training and two more in the posttest. For purposes of comparing individual differences, all test items were counted for each individual. Table 6 shows the mean percentage of items comprehended correctly, that is, correct selection of the picture representing the phrase with the sibilant morpheme and the percentage completely correct for each morpheme, that is, correct selection and correct production of both phrases for appropriate pictures. The seemingly much higher comprehension scores on the verb singular and copula than either of these morphemes showed when production was included probably requires different explanations for the two morphemes. For the singular meaning of the verb Z selection was based on the question: "Which picture is, The deer drinks?" Since the children often showed that they were using the subject noun as their clue to number, it seems likely that most chose (correctly) the singular picture on the basis of the word deer. In the subsequent production, 26 out of the 27 used either "deers" or "sheeps" in producing the name of a plural picture. The situation

Table 6

Mean Percentage Correct in Comprehension and Production

Pretest, Program Test and Posttest Combined

N=27

Morpheme	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Comprehension Only	96	57	79	88	77	75
Comprehension + Production	88	9	69	76	46	49

with the copula is susceptible of a different explanation. Here the children may have been treating the copula in the manner Labov has suggested, as an optional form, so that. although they fully understand The duck's red, they felt perfectly free to express the same meaning as The duck red. The comparison of the items testing understanding of the verb inflection as signal of singular with those testing the same morpheme as a signal of present tense shows that from the viewpoint of semantics this morpheme is psychologically not one element but two different ones. The difference between these sets of scores was statistically significant ($t=4.48$; $p<.001$).

It is obvious that comprehension will vary according to the particular phrases with which it is tested. Thus our measure may not mean the same for different kinds of items used to test comprehension. For example, items testing possessive and copula meaning involve pairs of phrases which are identical at the phonological level but which have different grammatical structure and in several cases different but homonymous words. The whole set of comprehension items have in common only the fact that the presence or absence of the morpheme changes the meaning of the phrase. We should therefore be cautious in comparing comprehension across morphemes. The comprehension results may depend very much on the particular type of pair chosen. This is conclusively shown in the case of the verb ending where the tense distinction is clearly not comparable

to the number distinction, and is no doubt true in some degree of other comparisons.

Keeping these cautions in mind, we can point out that the relative status of the copula and possessive in spontaneous speech is not the same as their relative status in our comprehension tests. The copula is significantly less well understood than the possessive in our test (for comprehension alone $t=2.4$; $p<.05$ and for comprehension plus production $t=10.00$; $p<.001$) whereas it occurs significantly more often in appropriate contexts in spontaneous speech ($t=4.91$; $p<.001$) as shown in Table 1.

Oral Reading

The question whether speaking a different dialect makes it harder to learn to read is an obvious and important one. One way to assess the possible effects of one dialect on learning to read another, such as Standard English, is to count how often the dialect-speaking child pronounces inflections which are shown in print, but which are not necessary in his own linguistic system. Table 7 shows the percentage of times each morpheme was pronounced audibly out of the total number of times the child encountered it in all the oral reading connected with the experiment. Although the plural morpheme was most often read, just as it was most often used in spontaneous speech, the morphemes commonly omitted in spontaneous speech were all more likely to be pronounced in oral reading, perhaps because the visual stimulus prompted it.

Table 7

Percentage of S and ∅ Endings that are Read Aloud Correctly

N=27

Morpheme	Plural	Verb	Possessive	Copula	Verb Possessive and Copula
All Oral Reading with S	89	76	66	87	76
Selected Sentences with S	88	76	69	93	77
Selected Sentences with ∅	97	94	99	92	95

Since a child in school may have had much experience with being corrected when he failed to articulate a significant sound, it seemed possible that the more frequent use of these sibilants in oral reading might be due, not to recognition of its grammatical appropriateness, but simply to a tendency to overcorrect, as though the child threw in terminal sibilants at random after being so frequently criticized for leaving them out. Their use in inappropriate places in spontaneous speech is fairly common in speakers of Nonstandard Negro English (Labov, 1968) possibly because of overcorrection. To check whether the greater frequency of articulation in reading than in speaking was due simply to a tendency to throw in final sibilants everywhere, we typed sentences containing equal numbers of words with and without s endings and compared the number of times a word with no ending (Ø) was read as though it ended in s with the number of times a word ending in s was read with Ø. Instances where Ø might be mistakenly read as s are easy enough to devise for singular and plural nouns and verbs simply by including singular nouns or verbs with plural subjects. For negative instances that could be taken for possessives we used simply noun-noun (e.g., river water) sequences and for negative instances of copula, pronouns followed by verbs (e.g., he couldn't). The bottom rows of Table 7 show that our subjects read the selected instances of s endings about the same way as s endings generally and that they almost never read s where Ø was appropriate.

Overcorrection then, is not a serious problem. It should be noted that the oral reading performance of the children in this class is generally good. Their average score on the Metropolitan Achievement Test of reading was about at their grade level.

Reading Comprehension

Articulation of a morpheme in oral reading does not necessarily imply that the meaning of it is understood by the reader. To find out whether our subjects could grasp grammatical meanings from the printed word, we modified the technique used for oral comprehension by printing the phrases on separate cards and asking the child to match the two cards with the correct pictures.

The test was done only at the end of the experimental series and the pictures used were the same ones the child had seen five or six weeks earlier on the oral test, so that the children were already familiar with the pictures. The experimenter said, "Remember the duck and the nurse? Here are the names of the two pictures. Read them carefully, look at the pictures and put each name under the picture it goes to." After he had placed the cards, the child was asked to read them aloud. This oral reading appeared not to be an equivalent of the oral production test, since the children fixed their attention solely on the printed words and ignored the pictures. Thus the response could not be interpreted as "reading aloud with understanding," and only the placement of the printed

cards was scored as comprehension. Table 8 shows the mean percentage of correct matches with the printed cards. All the reading comprehension scores are significantly different from the 50% chance level. However, the singular meaning of the verb is signficantly worse than chance, as though the s ending on the verb were treated as meaning plural rather than singular. Comprehension based upon the same test items presented orally at two stages of the experiment is shown for comparison. Because the reading items are all the same ones used in the oral pretest, the effect of the particular items was controlled but, although there was no feedback for the pretest, it is possible that practice had some effect. The verb singular meaning result is spuriously high in the oral form for the reason mentioned earlier, that in the oral version the choice is made for the singular phrase alone and can be made on the basis of the apparently singular noun without regard to the verb ending. The reading version had two cards, both with apparently singular nouns, so the choice could not be made on that basis alone.

Grammatical Knowledge

It is obvious that children use grammatical forms they cannot name or interpret in terms of explicit rules. However, since grammatical statements may be useful in developing or modifying language skills, it is worthwhile to know how well children at a given age can describe the

Table 8

Percentage of Correct Picture-Meaning Choices

with Oral and Printed Sibilant Morphemes

N=27

Morpheme	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Posttest Reading Comprehension	98	22	78	89	91	70
Pretest Oral Comprehension	94	41	74	72	63	62
Posttest Oral Comprehension	96	63	83	98	81	82

grammar of Standard English. In this study, the children in the second grade were asked to explain the meaning of s endings in two simple sentences which were presented in typewritten form under a picture illustrating what they said. The sentences were as follows:

The dogs eat the cat's food. The cat says it's hers. After the child read the sentences aloud, the experimenter asked in turn about each s morpheme what it meant in the context. Table 9 shows a rough classification of the answers received. Most children were able to state clearly the meaning of the plural. It seems intuitively much harder to answer the questions as to what the verb and possessive inflection mean and few acceptable answers were made. Surprisingly few could say that 's in it's meant is although intuition suggests that it would be a fairly obvious answer. A number of answers consisted of repeating the morpheme itself (repetition) or simply stating that the s was there (description). These are separated from the clearly wrong answers, most of which consisted of interpreting other morphemes as plural.

II. Correlations between Dialect Use and Educational Achievement

One way to answer the question of what implications nonstandard English has for education is to examine the correlations between various dialect measures and standardized achievement tests. Twenty-three of our subjects had taken the Metropolitan Achievement Test for word

Table 9

Responses to Questions on Meanings of Morphemes

	Morphemes			
Response	Plural	Verb	Possessive	Copula
Correct	21	0	1	2
Description & repetition	4	5	2	4
Error	0	11	17	9

knowledge and reading about a month before the experiment began. Table 10 shows the average scores and ranges. Since the class was at this point just a little more than halfway through the second grade, their scores are near grade level. The school authorities described this particular group as the second best of their six second grade classes.

Table 10 also shows the correlations between the Metropolitan subtests and several of our dialect measures. Our scores are for all dialect-related morphemes together, that is, the combined scores for the verb and possessive inflections and for the full or contracted copula is, indicating how frequently they were used in speech and oral reading and how well understood. If the absence of grammatical morphemes in Nonstandard Negro English is a serious problem in education, we would expect some correlation between use of nonstandard dialect and the achievement tests. The word knowledge subtests on the Metropolitan require the child to select one of a set of four printed words to match either a picture or a printed word synonym. No sentences are involved and therefore no grammatical morphemes. Word knowledge was not significantly correlated with either spontaneous use of grammatical morphemes or any comprehension measure. The low correlations with use and understanding of standard grammatical morphemes imply that dialect use is not primarily a function of any general linguistic ability or general environmental deficit. There

Table 10

Metropolitan Achievement Test Means

and Correlations with Various Language Measures

	Metropolitan Subtests		
	Knowledge	Reading	Average
Class Means	2.48	2.72	2.62
Ranges	1.7-3.3	1.7-3.9	1.8-3.5
Correlations with Combined Scores for Dialect-Related Morphemes			
Spontaneous Speech	.06	.41 $p<.05$	.29
Spontaneous Speech + Context-Cue Test	.13	.41 $p<.05$	.33
Picture-Meaning Test Oral Comprehension + Production	.16	.50 $p<.01$	.41 $p<.05$
Articulation in Oral Reading	.55 $p<.005$	.63 $p<.005$	.68 $p<.005$
Picture-Meaning Test Reading Comprehension	.26	.57 $p<.005$	.50 $p<.01$

was, however, a significant correlation between pronunciation of grammatical morphemes in oral reading and the word knowledge test. Word knowledge as measured amounts to reading vocabulary. Oral reading of grammatical morphemes also showed high correlations with the Metropolitan reading subtest and the combined Metropolitan scores.

The Metropolitan reading subtest requires reading whole sentences with understanding and therefore does involve grammatical morphemes. One part requires the child to select one of three sentences to match what is going on in a picture. All the sentences contain relevant words, so the choice cannot be made solely on word recognition. Some sentence comprehension is required. Another part of the test shows short passages and has multiple choice questions asking such things as "When ...?", "Where ...?", and "Who ...?". Scores on the reading subtest are significantly correlated with all of our dialect measures. The more spontaneous uses of the morphemes, including the context-cue test, are least correlated, the oral comprehension next, and the reading scores most highly correlated. Articulation of the morphemes in oral reading was best correlated with both Metropolitan subtests and with the combined measure. One reason for this is that our oral reading measure was based upon reading of between 36 and 69 words containing one or more of the dialect-related morphemes whereas the comprehension tests were based upon between 8 and 19 items. Thus the range of

scores and the reliability of the oral reading measure is much greater. It is also possible that a good reader is able to devote more attention to the fine points, such as grammatical morphemes, in oral reading. Thus children who have greater word knowledge and better recognition of the meaning of printed words, may read the grammatical morphemes better even though they are not particularly superior at using or comprehending the morphemes themselves.

The correlation between spontaneous use of Standard English and achievement scores suggests that there may be some value in language instruction for speakers of non-standard English, but does not in itself lead to the conclusion that children must acquire the habit of using Standard English for everyday communication if they are to be good learners. The correlation between spontaneous speech and reading is barely significant. We can guess that spontaneous use depends upon a much less conscious or explicit kind of grammatical knowledge than does our comprehension-production test or any reading measure since it is merely part of the natural competence of all speakers of the language and in no way depends upon high intelligence or upon education. It is primarily the more explicit grammatical knowledge that correlates with the educational achievement measure. Furthermore, from correlation alone, we cannot decide which is cause and which is effect. It is perfectly possible that it is higher school achievement that makes possible the higher scores on several of our dialect

tests rather than vice versa. These data do not in themselves, therefore, point to a policy of teaching Standard English grammar as a means of improving educational achievement.

III. The Effects of Training

Design

The learning experiment consisted of pretests of use and understanding of four sibilant morphemes followed by training in the morphemes and a posttest of the same kind as the pretest to determine the effect of the training. The tests consisted of 10 oral picture-meaning items (2 for each morpheme meaning), 8 context-cue items (2 for each morpheme) and sentences for oral reading which contained 2 samples of each morpheme. Alternate forms of each test were rotated between pretest and posttest so as to control for possible differences in their difficulty. The results reported thus far are the pooled scores of all test items used, pretests, posttests and test items used in the training period. In this section we will describe the training technique and report on pretest and posttest scores separately.

Method

Each subject met with the experimenter five times about half an hour each time at approximately one week intervals. For Session I, the first interview, two children were selected by the teacher as being either special friends or at least compatible persons. The purpose of the interview

was to obtain samples of informal spontaneous speech and oral reading. An oral reading test was given as part of a board game in which the two children competed. In subsequent sessions each child came alone. In Session II they took the oral picture-meaning test and the context-cue test. They were also shown a very interesting book of riddles, which elicited more oral reading. Sessions III and IV consisted primarily of programmed lessons on the four grammatical morphemes, plural noun and singular verb inflections in Session III and possessive and copula in Session IV. Each teaching program began with a simple statement about the use of the morpheme with several printed illustrations showing the s in red. The child then had a series of exercises in which he had to decide whether or not to put an s with a red marker in a blank provided. Cues were given in pictures or in sentence context. All words used were taken from primers used by the children to learn reading or were prompted by the experimenter. The child was prompted throughout the program by the experimenter so that all blanks not filled correctly at first were corrected. After writing all items the child was asked to read them aloud, pronouncing s's carefully. After the fill-ins were two picture-meaning test items, one where the child entered an s in a blank to match a picture, as a test of comprehension, and the other an oral picture-meaning item and, finally, a series of sentences containing the morphemes to be read aloud.

The program for teaching the plural inflection was given first as an introduction to the idea of this kind of programming. Since the plural morpheme was used consistently by nearly all the children, this program could hardly teach them much about the use of the morpheme itself, but it gave them skill and confidence with the program method and with the general idea of using s endings to express meaning. Most of the program items consisted of pairs of pictures showing one or more than one of some animal or object and providing the printed word with a blank at the end of it. The child had to select which blank to write an s in and then read both titles aloud. Any errors were corrected. The pictures were colorful, many of them traced from the children's readers, and they enjoyed doing the exercises. Some asked for more and were delighted to have the verb program to continue.

The verb program began with illustrations showing pairs of pictures in which either one or more than one child was doing something. Sentence pairs under the pictures showed both noun and verb inflections in red, e.g., Two boys run . One boy runs. with underlined blanks to emphasize zero inflections. The experimenter pointed out that when the word boy had an s on it, the word run did not and vice versa. After three illustrations, the child was shown eight pairs of sentences with subject nouns printed with or without a red s ending. The child had to decide which verbs required s and enter

the letter in the blank. He then read all sentences aloud. Again the experimenter corrected any errors.

The program for teaching the possessive was given in Session IV. It began with a statement that "apostrophe s" is sometimes used to mean that "somebody has something" and several illustrative words with pictures. The child filled in eight blanks in which the possesive 's was required and then had a series of sentences with seven blanks of which only four required the s. The child read the sentences aloud and was corrected if he used or failed to use the verb s correctly.

The copula program began with sentences containing -ing verbs with blanks in place of the required auxiliary, for example, One dog __ running. After is had been put in several such blanks, the experimenter explained that "apostrophe s" is sometimes used instead of is and showed three illustrations with 's in red, e.g., It's good. The exercise consisted of a series of five pairs of sentences, each with one -ing participle requiring 's in the preceding blank and one with a finite verb, not requiring 's, e.g., She ___ jumping. She ___ jumps. All items were read aloud by the subject and errors corrected by the experimenter.

In Session V each child was given the posttest, alternate forms of the same picture meaning, context-cue, and oral reading tests used as pretests. Approximately equal numbers of children had each form as pretest and as

posttest to control for the difficulty of individual items. Four forms of the oral reading test were used, each child being given three of them in counterbalanced positions as pretest, program items, and posttest.

Results

Table 11 shows various language scores of the children before and after the grammatical training programs. For purposes of comparison all scores are given as percentages of correct or standard inflection responses. Although no statistical tests were possible for spontaneous speech gains, because individual posttest speech samples were too small, it is obvious that the differences were small and inconsistent. The same may be said of the differences in the context-cue scores and of oral reading, for which statistical tests by individual subjects showed no significant differences before and after training. Since the picture-meaning test was the most explicit and conscious use of language tested, and since the program was similar to this test in the kind of skills required, it is not surprising to find all the significant gains in these scores. A Chi square test of the proportion of subjects doing better and worse on the posttest than on the pretest showed a significantly greater number doing better on all morphemes except plural nouns and singular verbs. Since all subjects did very well on the plural nouns in the pretest, there was hardly room for significant gain, and on the singular meaning of the verb inflection, which

Table 11

Mean Percentage of Correct or Standard Responses

on Pretest and Posttest Measures*

Language scores	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous:						
Pretest	94		43	56	79	63
Posttest	89		49	50	80	68
Context-cue:						
Pretest	93		37	61	78	59
Posttest	98		50	70	74	65
Oral reading:						
Pretest	85		68	52	85	65
Posttest	85		67	65	96	72
Picture-meaning:						
Pretest	82	4	59	63	22	37
Posttest	93	13	80**	94***	63***	62***

*A Chi square test based upon the number of individual subjects who had higher and lower scores on the posttest as compared with the pretest was made on all gains except spontaneous speech, for which the posttest individual data were inadequate. Only four were significant.

**$p<.05$

***$p<.001$

nearly all subjects failed on both tests, it is obvious that our training had no effect at all.

Discussion

If we explore the reasons for lack of gain on singular use of verbs, we can eliminate some possibilities. It is not that programs of this kind in general are ineffective or that ours was too short, since very similar types of programs had significant effects on the other morphemes for the same subjects. It is paradoxical that subjects gained in their understanding of the verb morpheme as a signal of tense, since the program dealt exclusively with the number meaning. Its effect on understanding of tense can have been only through its emphasis on the existence of s endings. Obviously the children themselves applied their existing knowledge of its tense meaning more effectively after the program had called their attention to sibilant morphemes in general. These results as a whole confirm the impression gained from the pooled data, that these various morphemes differ greatly in their status as part of the children's language and that the verb ending is psychologically two different entities according to its meanings of number and tense.

Comparing the effects of training on the different types of language performance, it seems safe to say that our grammatical training has its main influence on explicit grammatical knowledge and that we have no evidence at all that it affects oral language in either speaking or reading

aloud. The performances that were not affected are ones in which the meanings of the morphemes are probably less attended to, that is, are fairly automatic. They are unconsciously-directed responses that occur while the speaker's mind is concentrating on something else, such as the meaning of what he wants to say. It is possible but not obvious that much more grammatical training might ultimately have some influence on the more automatic uses of language, especially on the highly controlled formal styles of speaking. Our context-cue test and oral reading seem subject to fairly conscious control, however, and they have not been significantly affected here either. Before we undertake large-scale programs of training in Standard English as a second dialect, it is clear that we need to set realistic goals in terms of the kinds of performances we would expect to change immediately by such training and the kinds of measures we would use to determine the effects of the training.

IV. Analysis of Individual Morphemes

It is worthwhile to review the data so far in terms of each morpheme separately in order to put together the evidence for its status in the grammatical competence of the children. It is clear that we are measuring several different dimensions of that competence. For example, frequency of use does not directly measure the same thing as understanding, and "understanding" itself is a concept with more than one meaning. Our picture-meaning

test is a measure of one kind of comprehension and explicit grammatical knowledge would be another kind. The ease of learning to understand a morpheme would still be another dimension. Educational decisions about how and when to teach a particular form might depend upon the whole pattern of competence rather than upon any one measure.

Plural

Labov (1968) found the plural Z well established in the language of his male teenage subjects. About 10% omissions occurred among his groups and a high proportion of these omissions occurred for certain specific words: cent and year. He concluded that these words together with the phonologically determined omission of final consonants accounted for most plural morpheme omissions, and therefore that its status in the grammar was almost the same as in Standard English.

Our results are consistent with his estimate of the status of the plural Z. Table 12 shows high scores for plural on all our measures. Omissions in spontaneous speech are even less than Labov's 10%. Only 6 of our 27 individual subjects had more than 15% omissions and none over 33%. The fact that plurals were read aloud and well understood in the picture-meaning test both in speaking and writing also confirms their status in the language. Our subjects even overcorrected to conform to standard pluralization rules. When they were shown pictures of several sheep and several deer respectively and asked what

Table 12

Mean Percentages of Correct or Standard Responses for All Morphemes on All Tests

Test	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous speech	93		44	55	79 64
Context-cue test	100		48	66	77 60
Oral reading	89		76	66	87 76
Picture-meaning Comprehension only	96	57	86	88	76 75
Comprehension + Production	88	8	70	76	46 49
Reading comprehension	98	22	78	89	91 70
Metropolitan mean	Word knowledge: 2.48			Reading: 2.72	

these were, all but three subjects responded, "sheeps" and all but one said, "deers." Most of them were able to explain in words the meaning of the plural morpheme. When asked what the s on dogs meant 17 made clear that they understood it to mean plural, e.g., "lotta dogs," "two dogs," "more than one dog," etc. No one misinterpreted it.

It is puzzling that teachers commonly report omission of plural Z as a problem with black children. Possibly what they observe is simply omission of terminal sibilant morphemes, and, since the plural is the first such ending that usually comes to mind, they may conclude erroneously that it is primarily plurals that are missing. One other condition for omission of a few plurals showed in our results. A riddle in the book used for oral reading and entertainment during the experiment (Cerf, 1967) asked, "How can you keep fish from smelling?" The answer printed in the book was, "Cut off their noses." Most of the children read "nose." At a later session the experimenter asked each child, "How can you keep fish from smelling?" and all 26 tested again omitted the plural morpheme on "nose" in their answer. Asked "How can you keep owls from thinking?" 17 out of 26 answered, "Cut off their head," without the plural Z. Several also reported that when the class had visited Santa Claus, "He gave us a lollypop." These observations suggest the children perceive this "one apiece" context as requiring a singular noun, as in French. Since the plural is used there by many (though

not all) speakers of Standard English, it may be that some seeming omissions of the plural are the result of this difference in usage.

Verb Singular

Labov found the third person singular verb inflection the least used of the Z inflections, ranging in various groups from 0 to 50% frequency. He concluded that there is no third person singular inflection in Nonstandard Negro English, citing as confirmation several other observations which suggest his speakers were entirely unaware of any need for it. For example, his subjects had no tendency to increase its use in more formal styles of speech (as they did with the copula), no tendency to pronounce it more frequently preceding a word beginning with a vowel, and a random pattern of hypercorrection, that is, insertion of Z on inappropriate verbs. Our subjects were much like his in their use of Z on verbs in spontaneous speech and induction. Ours averaged less than 50% even though some individuals used it regularly. They did better in oral reading, when the letter s was before their eyes in print, with 76% articulation of the verb Z. On the picture-meaning measures our results were consistent with Labov's conclusion as long as we consider only the singular meaning of the morpheme. Only 8% of these items were responded to completely correctly. One psychological basis of the difficulty of this morpheme is shown in the children's reaction to these items. Many of them clearly

revealed that they were giving their entire attention to the noun in the sentence in determining number. They would ask the experimenter to repeat the noun only, or in their production they would make a distinction between the nouns in the two sentences but not in the verbs. The subjects and verbs in the sentences had been chosen with the intention of obscuring the noun plural inflection. Sheep and deer were selected because in adult Standard English they are the same in the singular and plural. The sentences with cat and rabbit as subjects had verbs beginning with unvoiced s so that subject and verb could be run together in both singular and plural in order to obscure the difference. The children did their best to thwart both methods of equating singular and plural nouns. All but one subject added Z to one or both of the words sheep and deer in their production of the plural-meaning sentences. (The one who omitted the Z was one who used the plural only 75% of the time spontaneously.) Many of them carefully pronounced cats and rabbits separately from the verb. Since we always presented the Z inflected sentence as the one to be selected in the picture-meaning test for comprehension, this reliance on the noun would lead to a correct choice of picture in the case of the sheep and deer items. In other words, the question "Which picture is The deer drinks?" would imply singular since the noun was uninflected. The average number of correct picture choices in comprehension of the verb Z was much higher

than the number completely correct on both comprehension and production. In the posttest, for sheep-deer items only, "correct" choices in comprehension alone exceeded chance expectation (Chi square = 7.3; $p<.01$). Eleven subjects improved in comprehension of these particular items between pretest and posttest and all eleven themselves pronounced Z on the subject nouns in their production of plurals. Only one also improved on comprehension and production together. Obviously they comprehend the noun Ø inflection rather than the verb Z. In their explicit grammatical judgments, they showed no understanding. Given the sentence, The cat says it's hers, they were asked to tell what the s on says meant. None mentioned singular or present tense and six interpreted it as plural, "more than one cat" or "the cat says more than one thing."

Our assessment of the verb inflection is complicated, however, by the results of the picture-meaning comprehension test of this same inflection as a clue to tense. Singular meaning is not understood; present meaning is quite well understood. Obviously we cannot speak of "comprehension" of the verb morpheme as a whole but must speak of comprehension only relative to specific meanings. The gain in understanding of the present meaning after training with singular meaning suggests that the effect of the training was simply to call attention to the morpheme and thus enhance the child's ability to use knowledge he already had about present tense meaning. The

pretest itself may also have served as teaching, although no feedback on correctness was given. Comparing comprehension with spontaneous speech, we find the morpheme used on fewer than half the occasions when it was required. If we conclude that it is used to express present meaning but not number, we would expect a large number of hypercorrections, that is, Z used with inappropriate subjects with present tense meaning. Our records actually show extremely few hypercorrections. Labov found more hypercorrections, but he reported that they tended to be characteristic of certain individuals. Possibly we have few such individuals or possibly hypercorrection is not so common in younger children. At any rate, despite their more frequent use of the possessive and contracted copula than of the verb inflection, they rarely used the verb Z erroneously after plurals or after first and second person pronouns. This suggests that at some less explicit level of consciousness our subjects do have some degree of comprehension of singular meaning that would account for their ability to confine their infrequent use of the ending to appropriate subjects. This hypothesis of a subconscious competence with a rule is supported by our finding that Standard English speaking white children and even adults, score less than perfectly on our "comprehension" test of singular meaning. The test is a difficult one even for individuals who regularly use the third singular Z correctly. One hypothesis

to explain the relative difficulty of the singular as compared with the present tense comprehension is that in English it is normal to expect that number will be signaled by nouns and that tense will be signaled by verbs. It is reported above that our subjects showed an unmistakable interest in the noun subjects despite our efforts to make the nouns indistinguishable as to number. Thus they purposely turned their attention away from the element that was supposed to be crucial in their decision. The natural redundancy of the language usually makes this an effective strategy. On the other hand, the verb is the normal place to look for a cue to tense in English. Evidence that our subjects do know how to select verbs according to the number of the subject comes from an introductory exercise in our program for teaching the copula. They were shown a printed sentence "one cat ___ running," and asked to decide whether is or are went in the blank. Only three of our subjects selected are. One of these was the one with the lowest score on use of the verb Z. Another spontaneously changed to is before she wrote the answer. In spontaneous speech these subjects pronounced are in full or contracted form only about 50% of the time as compared with 70% for is. Are was almost never used where is would be appropriate (less than 1%) and is occurred instead of are about 15% of the time. Thus the effect of a singular or plural subject on the verb element in a sentence is fairly well differentiated in the case of the copula. It

is consistent with our data, then, to suggest that our subjects understand subject-verb agreement in general but regard the Z morpheme as entirely optional. This would account for their frequent omission and their failure to insert Z inappropriately.

Possessive

Labov found the possessive morpheme used roughly 50% of the time in attributive position before the noun and concluded that there was no underlying attributive possessive in the nonstandard dialect. However, the absolute possessive, occurring in final position without the noun, e.g., "that house is my mother's," was always used. Our results are very similar. Although the attributive possessive is not as frequent in ordinary speech as plural nouns, singular verbs and copulas, we did have 17 subjects who spontaneously used it at least three times and all individual and correlation data are based on them. The mean percentage of possessive Z based on all subjects is 50%. Absolute possessives were rarer with only 28 instances spread among our 27 subjects. Of these 24 or 86% included the Z morpheme.

Contrasting with spontaneous use, comprehension was higher for the possessive than any other dialect-related morpheme tested. Our subjects understood the distinction between such minimal pairs as the man teacher and the man's teacher quite well, even before our training program and almost perfectly afterward. This suggests that under-

standing this particular standard morpheme is not a problem for these children. On those few occasions where it is not redundant with word order they can easily interpet it.

Oral reading of the possessive was relatively low on the other hand. The fact that it is printed with an apostrophe and a space between it and the word does not account for the problem because the same applies to the copula, which is nearly always read aloud. The low percentage in oral reading is probably due instead to an accident of selection of possessives for our reading materials. In order to observe the effect of a sibilant terminal consonant, requiring an extra syllable allomorph to form the possessive, half the words for the oral reading tests were selected with and half without terminal sibilants. By accident all the sibilant words ended either in s or z sounds and many standard speakers form the possessive of these words without the added syllable z, e.g., Mr. Charles' house. Thus our subjects read only 25% of these words with a separate syllable for the possessive. With non-sibilant endings, the possessive was read aloud 85% of the time. Thus the low percentage relative to the copula is due entirely to the choice of sibilant endings.

The possessive was relatively easy to elicit by a specific question such as we used in our context-cue test. The experimenter said, "If the girl has an elephant, we say it's the ____" stopping in mid-sentence to wait for

the child to fill in girl's elephant or girl elephant. Under these conditions the possessive morpheme was used an average of 70% of the time. On the other hand children did not verbalize correctly about it, perhaps partly because they lacked the necessary vocabulary. Asked to explain the meaning of 's in the cat's food..., 12 of them explained it as plural, for example, as "more than one cat" or a "lotta food." Only two gave answers like "It's the cat's food," which sounded as though they might be trying to express possession.

We conclude that with regard to the possessive morpheme these children are bi-dialectal, that is, they use it only half the time themselves on the average but they understand it implicitly quite well and can also use it correctly themselves if called upon to do so. The task of the teacher of second dialect, then, is to make the children sensitive to situations where it should be used rather than to teach them what it means.

Copula

The status of the copula in the language of speakers of nonstandard Negro English was also assessed by Labov. He concluded that the copula is present in the underlying structure of the language, and that its absence from many sentences is the result of a rule extending the Standard English rule for contraction to allow for optional deletion also. Our observations confirm his findings in that our subjects always used the full form is in contexts

where contraction is impossible in Standard English and no individual used it fewer than 2 times out of 10 possible occasions in contexts where it may be contracted. It is the most used of our three dialected-related morphemes, averaging 80% for all subjects. It is also most often articulated in oral reading and understood in reading comprehension. The only measure in which the copula use is low relative to the other morphemes is in the picture-meaning test score based on both comprehension and production. In comprehension alone (selecting the correct picture to match the phrase with the copula) scores were much closer to those of the other dialect-related morphemes (Table 12). It was in using the copula in naming the pictures that the frequency fell. Comparing the performances before and after the teaching program, where they were drilled on using the contraction of _is_, we find a larger gain than for any other morpheme, although total use is still relatively low (Table 11). It is as though they learned to increase their use of the copula in this context, but retained the optional character of it.

Whatever the status of the copula in their underlying competence, the meaning of the contracted copula was not easily verbalized. After reading the phrase _The cat says it's hers_, they were asked to tell what the _'s_ meant in _it's_. Only 2 of the 27 were able to say it meant _is_.

V. Idiolects: The Languages of Individual Children

Introduction

A report on a language shared by any group of people gives a false impression of uniformity, as though there were some average pattern from which all deviations were accidental or unimportant. Showing the average use of each morpheme for the whole group implies that the pattern of relative frequency for each child is similar to that of the group, when in fact it is not.

There is no such thing as "the child's" language or even "the Negro child's" language. Every child is an individual. Each has his own version of the language, distinguishable from others. Each has his own personality, mannerisms and opinion of the experimental situation. Many of these differences are lost in discussions of averages and correlations. The following sketches of individual children are presented in order to counteract the over-all impression of sameness that is given by a general report and to keep the data anchored in the reality they represent. In addition, however, individual data add information that cannot be represented by averages, for example, about the variety of scores on different measures that are possible in one individual and the way in which one characteristic may explain another. For each child we will give the experimenter's impression of his or her personality and motivation in the test situation, a table showing this individual's unique pattern of scores together with

comment on his individual language, or idiolect, comparing it with the pattern of averages shown in Table 13. Finally, there will be a brief summary of such information as is known about his or her school achievement.

Most of the 17 children were born in New York city and have at least one parent from the Southeast. Exceptions are two whose families are from Antigua, two with native New York parents, one from Louisiana, and one from the Virgin Islands.

Bennie Smith (Table 14)

Personality and Test Motivation: Bennie was not talkative with the experimenter, though his teacher described him as playful. He responded willingly but without enthusiasm or unnecessary comment. He was a little cautious, especially after making an error, and he seemed always to be trying to "do well."

Language: In spontaneous speech Bennie used the full or contracted copula most of the time but on 15 singular verbs never once used the Z inflection. In oral reading, however, he almost always pronounced both. His comprehension on the oral picture-meaning test of the singular meaning of the verb inflection was zero, but he did well with the present meaning. In the reading form he scored correctly on both meanings, as he did on all other morphemes.

School Achievement: Bennie was a good reader, ahead of his grade level according to the Metropolitan Reading subtest and by his teacher's judgment, though his word

Table 13

Mean Correct or Standard Responses for All Morphemes

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	93	44		55	79	64
Context-cue	100	48		66	77	60
Oral Reading	89	76		66	87	76
Picture-meaning*						
Oral pretest**	1.6	.1	1.2	1.3	.4	2.96
Oral posttest**	1.9	.3	1.6	1.9	1.3	5.00
Reading comprehension	2.0	1.2	1.6	2.0	1.6	6.40

Metropolitan Word knowledge: 2.48 Reading: 2.72

*Maximum possible score on picture-meaning tests is 2 for individual morphemes and 8 for combined dialect-related morphemes.

**Oral test scores are number of items in which both comprehension and production were completely correct.

Table 14

Bennie Smith's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	91	00		-	84	46
Context-cue	88	21		50	70	40
Oral Reading	91	95		79	93	89
Picture-meaning Oral Pretest	2	0	1	1	1	3
Oral Posttest	1	0	2	2	2	6
Reading Comprehension	2	2	2	2	2	8

Metropolitan: Word Knowledge: 2.6 Reading: 3.4 Age: 8 yr 4 mo

knowledge score was no better than grade level.

Sonia Vesey (Table 15)

Personality and Test Motivation: Sonia was business-like and fairly confident. Her teacher described her as a worker. She approached the tests and program with caution, trying hard to be correct and complete, as though to protect herself from exposure, but neither in great fear nor in self-display. She said no more than necessary and was a little tense.

Language: In speech Sonia used the copula always, reflecting perhaps her formal style, but was much less consistent with the verb and possessive. However, she gave the verb ending in the context-cue test situation and used it in oral reading. The possessive Z was less frequent in both these other tests. There was no sign of understanding the singular meaning of the verb inflection, whereas she had no trouble with the present meaning, the possessive or the copula.

School Achievement: Sonia was the best reader in the class according to the Metropolitan test, which showed her well above grade level. She was also somewhat above grade level in word knowledge, and her teacher called her work good or excellent in everything.

Sammy Nelson (Table 16)

Personality and Test Motivation: Sammy was business-like in manner. He was neither talkative nor reticient. He dressed well and talked about his clothes with interest.

Table 15

Sonia Vesey's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	98	60		43	100	67
Context-cue	100	100		67	100	94
Oral Reading	97	96		81	100	92
Picture-meaning Oral Pretest	2	0	2	2	1	5
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	1	2	2	2	7

Metropolitan: Word Knowledge: 3.0 Reading: 3.9 Age: 7 yr 11 mo

Table 16

Sammy Nelson's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	93	50		73	83	77
Context-cue	78	50		83	75	62
Oral Reading	80	88		78	100	88
Picture-meaning Oral Pretest	1	0	1	2	1	4
Oral Posttest	2	0	0	2	1	3
Reading Comprehension	2	1	2	2	2	7

Metropolitan: Word Knowledge: 2.4 Reading: 2.9 Age: 7 yr 6 mo

He also wanted to color some of the test pictures. His teacher called him rough and aggressive. He had a temper and disruptive friends, she said.

Language: He used the copula more than the other dialect-related morphemes, though his use of the other two was only a little above average. The context-cue test showed fewer Z morphemes than his spontaneous speech, a reversal of the usual pattern. He didn't comprehend either meaning of the verb inflection in the oral test and was less than perfect in the copula. However, he did better in the reading form.

School Achievement: Sammy was a little above grade level on the Metropolitan reading subtest but a little below on word knowledge. His teacher described most of his work as only fair.

Sandra Baker (Table 17)

Personality and Test Motivation: Sandra joked around and frequently interrupted the experimental procedure with her own remarks. She seemed to be showing that she wasn't really trying in order not to have to take responsibility for mistakes, since she did this especially when she really didn't understand what was going on. She seemed to be making conversation with some gaiety as though to escape the work, but without any serious resistance. She was quite enthusiastic about doing some tasks.

Language: Sandra's language was relatively non-standard, although she was not below average on the verb

Table 17

Sandra Baker's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	100	43		0	33	32
Context-cue	100	36		0	38	29
Oral Reading	93	78		75	91	80
Picture-meaning Oral Pretest	1	0	2	1	0	3
Oral Posttest	2	0	2	2	1	5
Reading Comprehension	2	0	2	2	2	6

Metropolitan: Word Knowledge: 2.0 Reading: 3.2 Age: 7 yr 9 mo

Z. She seemed more at ease than most, so perhaps her informality accounted for her frequent omission of copula and possessive. She left them out in induction, too, however, though in her oral reading they were more frequent. Her comprehension of the possessive was much higher than her use of it would suggest. She seemed to understand the present meaning of the verb, but not the singular at all. Her reading comprehension was high except for the singular.

School Achievement: Sandra's Metropolitan reading score was above grade level, though word knowledge was much below. Her teacher called her work good in everything.

Kevin Neal (Table 18)

Personality and Test Motivation: Kevin was trying to use the experimental sessions as an opportunity for fun and games. In the initial session with Gary Norman he gave some trenchant criticism of the dramatic quality of some children's television programs but was no match for Gary in assertivenss. His teacher said he was immature, boisterous, and disruptive, a fighter.

Language: As for the pretest for comprehension in the second session, he frequently gave his attention to the wrong word so that the distinctions baffled him. He tried to get cues from the experimenter about what was right and, failing that, showed weariness with the whole thing. He didn't really understand the purpose of the context-cue test, either. This failure to grasp the tests

Table 18

Kevin Neal's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	91	5		-	22	14
Context-cue	100	25		43	18	25
Oral Reading	93	77		41	65	65
Picture-meaning Oral Pretest	0	0	1	0	0	1
Oral Posttest	2	1	2	2	0	5
Reading Comprehension	2	0	0	2	2	4

Metropolitan: Word Knowledge: 3.0 Reading: 2.5 Age: 7 yr 7 mo

is understandable in view of the low status of all the dialect-related morphemes in his own speech. He had no trouble with the plural tests because they made sense in terms of his own language. After the training he seemed to have made some progress with understanding the possessive, but the other morphemes were uncertain.

School Achievement: Kevin is a member of a one-third minority of the class who did better in the Metropolitan word knowledge subtest than in reading, but he was only slightly below grade level in the latter. His teacher called his work good in everything except reading and spelling, neither of which she mentioned.

Larry Dodson (Table 19)

Personality and Test Motivation: Larry was apathetic about the pretest, uncertain what he was supposed to do. On the posttest he seemed willing but not eager, alert and maybe mildly interested but his tone suggested occasionally that he thought the answer was obvious. Larry's calm behavior during the testing is in contrast with the way he acted when he was interviewed with William Hunt. He was strongly influenced by William who in turn is a serious behavior problem in class, to the point where he was suspended for a few weeks. William dominated Larry in the interview, making him go first with the microphone and then answering for him quite a bit. Larry submitted and only asserted himself in the reading contest, where he clearly outdid William. Larry identified his "best fight"

Table 19

Larry Dodson's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	91	33		-	50	44
Context-cue	89	29		83	50	45
Oral Reading	100	56		38	44	48
Picture-meaning Oral Pretest	1	0	1	2	0	3
Oral Posttest	2	0	2	2	1	5
Reading Comprehension	2	0	2	2	2	6

Metropolitan: Word Knowledge: -- Reading: -- Age: 8 yr 11 mo

as one in which William beat him.

Language: Larry was somewhat below average in spontaneous use of standard morphemes, although his context-cue test suggested he was able to use the possessive ending when he felt he needed it. He used no contracted copulas in his standard speech so that his 50% for copulas were exclusively full forms and, during the program on the contracted *is* he seemed not to know what the contraction was all about. He used fewer sibilant morphemes in oral reading than most, though his comprehension scores were similar to most.

School Achievement: Larry is an emotional problem. He keeps to himself, sometimes staying in the classroom when the class goes elsewhere and sometimes just wandering around the school building alone. His teacher checked him as unsatisfactory in getting along, obedience, responsibility, attention, self-control, and participation. She said he was stubborn, had a temper, demanded attention, and was not working up to capacity. He was absent for the Metropolitan test, but she rated him unsatisfactory on most subjects, fair in reading and writing and good in oral work. This was his second try at the second grade.

Gary Norman (Table 20)

Personality and Test Motivation: Gary regarded the experimental sessions as a privilege and wanted to postpone his return to class as long as possible. He was concerned about getting his turn again next week. He said he liked to come and wanted to know if the experimenter liked it

Table 20

Gary Norman's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	100	52	-	57	55
Context-cue	100	50	100	100	73
Oral Reading	94	96	72	80	86
Picture-meaning Oral Pretest	2	1	2	2	1	6
Oral Posttest	2	1	2	2	1	6
Reading Comprehension	2	1	2	2	2	7

Metropolitan: Word Knowledge: -- Reading: -- Age: 8 yr 1 mo

too. He worked very carefully and talked a good deal about the tasks, what things were hard, why he chose certain responses. Another aspect of Gary was his competitiveness. He always wanted to know if he had "won" even in the later sessions, when he wasn't playing against anyone. Part of his concern about getting his turn was getting his share of the experimenter's attention.

Language: Gary's language was slightly above average on the verb Z and slightly below on the copula. He explained spontaneously for The cat sleeps that the s on sleeps means that there was only one cat. He answered that item correctly in reading comprehension while missing The sheep pushes. It had been the opposite with the same two items given orally on the pretest: he pronounced sleep with no s for both pictures, whereas he had correctly said The sheep pushes and The sheeps push. He only used one possessive spontaneously and pronounced the Z, but he didn't always articulate it in oral reading. However, he produced it consistently in the context-cue test and understood it perfectly, as he also did the tense meaning of the verb Z. The copula puzzled him a little. For He's eight he selected the picture of the man who had just eaten rather than the man with the number 8 on his jersey. Then he interpreted the former as "He's ate already," and the latter as "He is eight." Apparently, "He's ate" is understood as "He has ate," a possible form in his dialect. The other copula item he missed was He won and He's one, also subject

to the same ambiguity. He matched the correct pictures in the reading comprehension for both He('s) cut and She('s) pushed although the same ambiguity with has exists in those items. His lower score on spontaneous use of the copula is due mostly to the first session when he was talking excitedly about television with a friend present. In later sessions, when he was talking very carefully, his use was about average.

School Achievement: The teacher graded Gary as good in most subjects, but gave no grade in reading, nor was he present for the Metropolitan. She also described him as lively, bright, charming, cheerful, and "all boy."

Ola Mae Talbot (Table 21)

Personality and Test Motivation: Ola Mae is a lively little girl, but she was somewhat dominated by Grace who was interviewed with her. She let Grace interrupt her and talked noticeably more softly herself. She was defensive when Grace taunted her about her "countrified" speech. Ola Mae said proudly she was born in Seidenham (a New York hospital), but Grace made fun of the way she said "born," and Ola Mae gave up the fight. She was also notably cowed when Grace openly doubted her veracity about a movie she had seen.

Language: In the testing Ola Mae tried hard even when she didn't catch on to the point. She sometimes talked very formally and this may be what brought her spontaneous speech to a relatively standard level compared

Table 21

Ola Mae Talbot's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	94	50		-	95	77
Context-cue	100	12		43	90	41
Oral Reading	81	38		36	83	49
Picture-meaning Oral Pretest	2	0	1	2	1	4
Oral Posttest	2	0	0	2	2	4
Reading Comprehension	2	0	1	2	2	5

Metropolitan: Word Knowledge: - Reading: - Age: 8 yr 1 mo

with her context-cue test, oral reading, and picture-meaning comprehension. She was very standard in her use of the copula and a little above average with the verb inflection, but in the more conscious tests of the verb she was very low. With the possessive she understood it well, but pronounced it in the context-cue and oral reading much less frequently than average. She rejected the grammatical explanation of the verb Z, that you use s when there's only one cat running. "When more than one person run, you put s on it," she insisted. Her reputation with Grace for being "countrified" may be based upon her phonology or upon her use of a very informal style in other situations or possibly simply upon the fact that, relative to Grace, she was less standard.

School Achievement: Ola Mae's teacher says she is eager but quiet, inclined to play alone and frequently absent. Possibly her "countrified" speech gives her low status with the group. However, her work is good in everything except reading, where she is a little behind.

Lena Kelly (Table 22)

Personality and Test Motivation: Lena was a beautiful girl and knew it. She was constantly being told it, and she had once won a beauty contest. She marched at the head of the class line always and was persistently eager to be chosen every time the experimenter came to get someone. Boys in the class argued over who would "marry" her and several mentioned her as their "girl friend." She was

Table 22

Lena Kelly's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	87	71		33	84	78
Context-cue	100	43		100	100	71
Oral Reading	94	83		82	93	86
Picture-meaning Oral Pretest	1	0	1	2	1	4
Oral Posttest	2	2	2	2	1	7
Reading Comprehension	2	0	2	2	2	6

Metropolitan: Word Knowledge: 3.0 Reading: 3.6 Age: 8 yr 0 mo

diligent and confident in her answers, though often made seemingly careless errors. She was more concerned with correct pronunciation than with meaning. She showed neither initiative nor enthusiasm, but complete willingness to perform, as though to display her ability. The teacher said she was bright and artistic. Possibly her ballet lessons and general talent for display contribute to this reputation.

Language: She used the copula spontaneously more than average, the verb inflection much more, but the possessive much less. On the other hand she did not catch on to the context-cue test for the verb well but gave perfectly standard responses on both possessive and copula. Her comprehension was quite high, except on the verb singular and her oral reading was better than average.

School Achievement: Although Lena's Metropolitan reading score was well above grade level, she was a little behind the class in the reading series. However, she was rated as good or good-to-excellent in all other subjects.

Freddy Barker (Table 23)

Personality and Test Motivation: Freddy was a little performer. He was regarded as cute and knew it. His manners were formal and confident. He was pleased with himself but not aggressive. He boasted about his skill in "making bell bottoms" for his mother and sister. He said he was taking ballet lessons and learning to dance on his toes "like the other girls do." He mentioned that his

Table 23

Freddy Barker's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	100	64		100	96	87
Context-cue	100	76		83	100	84
Oral Reading	89	93		94	100	95
Picture-meaning Oral Pretest	2	0	2	1	1	4
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	0	2	2	2	6

Metropolitan: Word Knowledge: 2.3 Reading: 3.2 Age: 7 yr 9 mo

mother said he could be a tailor, but he also wanted to be a "parade boy" and wear fancy uniforms while he played horns and drums. He knew the game of education, tried hard, knew what teachers wanted and wanted to perform correctly. He was quite good at the nominalization task and enjoyed the joke book in his own quiet way. He sang to himself when he was not busy answering questions, a delicate little boy, quiet but not timid and not lacking in initiative.

Language: Freddy's spontaneous language was quite standard in all measures, though he did not understand the verb singular meaning at all. His high scores were perhaps due to his formal style.

School Achievement: Freddy was below his grade in word knowledge somewhat but above in reading. The teacher rated him good in some subjects and fair in others including reading and commented on his low word knowledge.

Bobby Simmons (Table 24)

Personality and Test Motivation: Bobby was cautious, careful, fearful of error, lacking confidence in his judgment or safety. His teacher said the others teased him often and he cried. He was a little overweight, slow working, and clumsy. His manners were formal and he liked to pontificate at length. His teacher said he was immature and demanding of attention. It seemed as though he must be under great pressure to be a perfect gentleman, perhaps with threat of damnation if he strayed even slightly. He

Table 24

Bobby Simmons' Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	99	88	100	97	94
Context-cue	100	93	50	88	86
Oral Reading	91	90	67	100	84
Picture-meaning Oral Pretest	2	0	2	2	0	4
Oral Posttest	2	0	2	2	0	4
Reading Comprehension	2	0	2	2	1	5

Metropolitan: Word Knowledge: - Reading: - Age: 8 yr 3 mo

had learned to cope with the adult angels of the Lord but not with the young devils around him. He tried very hard on the tests, but hated to commit himself when he wasn't sure.

Bobby tried in the interview to unburden himself about the negative way he felt about his class, but Sammy interrupted to disagree. Sammy defended their class as one of the best and in particular referred to their first grade teacher, Miss Cohen. Bobby immediately joined in the ecstatic praise of Miss Cohen and both agreed that the whole class had wept to leave her at the end of the year. Bobby's discontent with today disappeared in nostalgia for the first grade. There were no complaints about the present teacher, Miss Brown, but Miss Cohen had been an angel of mercy who visited them when they were sick and earned their love when they were well.

During experimental sessions when he was alone, Bobby more than once asked permission to tell the tape recorder at length some of his ideas. His sermonizing was somewhat authoritarian. He described at length a method for overcoming poverty by sending one's children out with orders to return with a given amount of money. He liked the television program "Generation Gap" but felt that the older generation was generally right.

Language: Bobby's language was very standard on all morphemes. He didn't quite get the idea of the context-cue test for the possessive and his intonation suggested

that he was using the possessive word as an adjective rather than as a possessive. Thus, when asked, "If the cat has an umbrella, we say it's the...." he replied, "Cat umbrella," sounding like an umbrella made for a cat's use rather than an umbrella belonging to a cat.

School Achievement: Bobby's teacher described him as very bright and rated his work good in all subjects.

Sammy Norton (Table 25)

Personality and Test Motivation: Sammy was naturally confident, not shy or affected. He worked hard at the tasks but was not strained or threatened. However, when the tasks required a bit too much effort, like reading, at which he was not good, or when he thought he was doing badly, he whined and wanted to quit. However, he yielded to persuasion to continue. Sometimes he acted very pleased with himself when he succeeded at something he had thought he would fail. Sammy was much more dominant than Bobby in the interview.

Language: Sammy was much above average in spontaneous use of the verb Z, but much below on the possessive. However, the context-cue test brought out his possessive better than it did his verb ending. Considering his backwardness in reading generally, his oral reading performance was very good on dialect-related morphemes. His picture-meaning comprehension was good except for the verb singular and the copula. He had some trouble with the verb Z and possessive in oral reading as with most other

Table 25

Sammy Norton's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	100	67		25	76	67
Context-cue	100	58		67	100	70
Oral Reading	94	72		67	91	75
Picture-meaning Oral Pretest	2	0	2	2	0	4
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	0	2	2	1	5

Metropolitan: Word Knowledge: 1.9 Reading: 1.7 Age: 7 yr 10 mo

aspects of reading.

School Achievement: The teacher's ratings reflected his troubles with reading. She called him good on social behavior and work habits but only fair at reading and oral and written expression. The Metropolitan showed him well below grade level in both word knowledge and reading.

Debra Nash (Table 26)

Personality and Test Motivation: Debra used a very formal style of speech in the interview, as though she were playing a role and carefully avoiding any mistakes in language. When Bettye played a game of interviewing her, Debra told of her baby brother's death by fire in the same formal way with only a low voice and a grave tone to reflect the emotion of the situation. In the test situation she did not seem intimidated, just very careful, attending more to the way she said things than to what they meant. She tried hard, but seemingly not for the sake of the task but to show the experimenter she was capable. Only once in the later session did she relax her manner of speech to report a little classroom gossip. Her nonstandard forms were more frequent then.

Language: Debra's formality showed in her spontaneous speech with nearly consistent use of all standard morphemes. She did not catch on to what was required in the context-cue test for the verb Z, so her score there may be artifically low. However, her picture-meaning comprehension of the verb inflection was less than some

Table 26

Debra Nash's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	100		86	100	100	96
Context-cue	100		36	67	100	61
Oral Reading	97		96	72	100	91
Picture-meaning Oral Pretest	2	0	1	1	1	3
Oral Posttest	1	1	2	2	2	7
Reading Comprehension	2	0	1	2	2	5

Metropolitan: Word Knowledge: 2.8 Reading: 3.2 Age: 7 yr 6 mo

others', too.

School Achievement: Debra got "good" ratings in her classwork bordering on excellent for oral language and the teacher described her as enthusiastic.

Hazel Newcomb (Table 27)

Personality and Test Motivation: Hazel was full of giggles in the first interview with Vanessa present. She was wary of the tape recorder and warned Vanessa about use of an uncouth word. She interrupted Vanessa's account of how you play hopscotch, but Vanessa in turn giggled in the background while Hazel told about her own family, naming ten brothers and sisters and giving the ages of six of them. Vanessa muttered, "She only got two little brothers." Hazel may have been fabricating, or she may have been counting cousins as part of the family. In the second session Hazel seemed timid at first and said very little. In later sessions she did a good deal of singing and chattering to herself while she worked and showed occasionally that she was bored. At times she worked quite confidently but made mistakes.

Language: Hazel's language was quite nonstandard. Even in reading her articulation of sibilant morphemes was low, perhaps mainly because she is a little below grade level in reading generally as shown on the Metropolitan. Her picture-meaning comprehension was also low compared to the others.

School Achievement: The teacher gave Hazel various

Table 27

Hazel Newcomb's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	75	10		0	60	33
Context-cue	88	24		33	25	26
Oral Reading	79	52		63	64	56
Picture-meaning Oral Pretest	2	0	0	1	0	1
Oral Posttest	2	0	1	1	1	3
Reading Comprehension	2	0	2	1	2	5

Metropolitan: Word Knowledge: 2.8 Reading: 2.2 Age: 9 yr 3 mo

ratings, good in social adjustment and reading but only fair in oral work and excellent at work habits.

Vanessa Niles (Table 28)

Personality and Test Motivation: Vanessa was very anxious to be accepted and seemed to regard getting the right answers as the main way. She tested and commented constantly to find out how well she was doing. At one point after making a series of mistakes, she said proudly, "I'm gettin' alls dem right," but continued to demand feedback on her success. The experimenter refrained from saying she was wrong, and she may have been testing to see if the experimenter was lying. She struggled hard with reading that was quite beyond her. She wanted very much to have a token of the experimenter's affection in the form of a picture and persisted in asking session after session until she got one. She was very sensitive about wrong answers, sometimes trying to laugh them off. One time, after several unsuccessful struggles she suddenly announced, "you ain't never heard of Loosiana" as though to show there was something on which she was better informed than the experimenter.

Language: Vanessa used the verb Z and copula less then the other children, but the possessive more, though she did not understand anything except the plural on the picture-meaning tests. Her low reading scores reflect the fact that she is below grade level in reading. She is also very low in word knowledge, though she is one of the oldest

Table 28

Vanessa Niles' Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	78	0		67	54	39
Context-cue	78	44		67	50	50
Oral Reading	60	44		50	69	52
Picture-meaning Oral Pretest	2	0	0	0	0	0
Oral Posttest	2	0	0	1	1	2
Reading Comprehension	2	1	0	0	2	3

Metropolitan: Word Knowledge: 1.8 Reading: 2.0 Age: 8 yr 6 mo

in the class. She had a hard time identifying the animals in the pictures.

School Achievement: The teacher said Vanessa's social behavior and work habits were good and said the same of her writing. Spelling and oral work were fair and reading is obviously behind. The teacher also commented that she was withdrawn and shy. The others do not accept her very well, perhaps because she dresses poorly and is not well cared for. The teacher said she was very poor. Once she came into an experimental session in tears after a boy had attacked her in the playground.

Bettye Quale (Table 29)

Personality and Test Motivation: Bettye was a little self-conscious. During the initial interview with Debra she talked quite stiffly and maintained a formal role. Later alone she was not quite at ease. She wanted to be right and took the experimenter's non-commital responses to mean that she usually was right, covering her uncertainty with nervous laughter. She was fairly confident of herself in that she tried to put down the experimenter by asking riddles she ostensibly didn't know and taunted her with wrong answers. She was a little impatient with the tests, made fun of the test pictures, and occasionally showed her boredom. She had some social initiative and was curious about what was going on so her efforts were not just obedience or trying to please.

Language: Bettye had good control of the possessive

Table 29

Bettye Quale's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	96		29	100	100	79
Context-cue	100		75	100	88	83
Oral Reading	94		96	57	87	83
Picture-meaning Oral Pretest	2	0	0	1	0	1
Oral Posttest	2	0	1	2	2	5
Reading Comprehension	2	0	1	2	2	5

Metropolitan: Word Knowledge: 3.0 Reading: 3.6 Age: 7 yr 4 mo

Z and the copula, but even in her formal style she was below average in use of the verb Z. The context-cue test raised her use of the verb inflection and in oral reading she did better with it than she did with the other two, perhaps because the apostrophe and space make the others harder to identify as part of the word. In the pretest she took some time to catch on to the point of the test. She examined the pictures and made her own observations, sometimes thereby missing what was supposed to be the distinction. She commented about mid-test that there was no difference between the two titles and it took her several items before she realized she was supposed to use the exact titles given by the experimenter. After the explanation about the verb Z, she added "When it's s on play, no s on boy." This was recited with pride, but there was no improvement on posttest. Although she did not show much improvement on either meaning of the verb in the later two tests, she obviously had the idea of the test format and understood the possessive and copula by then.

School Achievement: Bettye was a little ahead of grade level in word knowledge and well ahead in reading by the Metropolitan. Her grades were all good or excellent, except she was a little behind in the class reading series.

Nisi Harris (Table 30)

Personality and Test Motivation: Nisi was much more outgoing in the company of Carol during the first interview than she was later alone. She was quite distressed

Table 30

Nisi Harris' Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	100	38		-	81	62
Context-cue	100	33		100	88	59
Oral Reading	97	86		78	93	85
Picture-meaning Oral Pretest	2	0	2	1	1	4
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	0	2	1	2	5

Metropolitan: Word Knowledge: 3.0 Reading: 3.2 Age: 7 yr 6 mo

on hard tests where she got many wrong answers or was baffled. Even the riddle book, which most children enjoyed, baffled her and she did not regard the riddles as jokes. Neither she nor Carol corrected the experimenter, who called them by the wrong names during much of the interview. Nisi was livelier when she was succeeding but always a little subdued. She worked hard on the program and tests, usually giving correct answers and sometimes asking about the s endings. When the experimenter explained about the verb inflection, she interrupted, "Oh, you put--um--s on...only on one person what he's doing when he's playin'." Yet this seemingly correct conscious understanding was not reflected in any improvement on the posttest.

Language: Nisi was about average in use of the verb Z but above average in the copula. She used only two possessives, both with the Z and in the context-cue test she scored perfectly on that ending. Her reading and understanding of the possessive were uncertain compared to the other two morphemes. The singular meaning of the verb Z was not understood in spite of her correct repetition of the explanation during the program.

School Achievement: Nisi was a little above grade level in both word knowledge and reading. Her grades in class were good, though some were missing from the record.

Keith Yarrow (Table 31)

Personality and Test Motivation: Keith dominated

Table 31

Keith Yarrow's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	85	20		-	38	31
Context-cue	90	33		67	67	46
Oral Reading	90	96		78	93	90
Picture-meaning Oral Pretest	2	0	2	2	0	4
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	2	2	1	1	6

Metropolitan: Word Knowledge: 3.3 Reading: 3.6 Age: 7 yr 8 mo

over Dennis when they were interviewed together. He interrupted more often, and he insisted on "winning" the game even to the point of openly cheating, though it was obvious to him that "winning" was a necessary consequence of having had the first turn. He also asked persistently and regularly to be given things, a picture, the riddle book, and other objects used. The argument of fairness to others in the class had no weight with him because he wanted it. The experimental procedures appealed to him but primarily as a means of getting something or winning.

Language: Keith's low use of dialect-related morphemes in spontaneous speech may be partly the result of phonological characteristics of his speech, a tendency not to articulate final consonants. Many times it was impossible to score his responses because it was not clear whether he used the Z inflection or not. His articulation improved considerably in the context-cue situation, and he was obviously capable of pronouncing all the sibilants in oral reading. He learned to use the copula in the oral test, but was uncertain of 's in reading comprehension. He seemed to have understood the verb singular Z but in writing only. The present tense meaning of it was apparently clear to him as were the possessive and plural Z.

School Achievement: Keith was ahead of grade level by some months on both word knowledge and reading. His teacher rated him good or excellent in everything except reading, where he was a little behind in class. She called

him a "fine boy" and a good worker but said he lacked drive. His orientation toward material reward and lack of concern for the task for its own sake in the experimental situation may show up in class as disinterest because there is less obvious reward there.

Dennis Hollins (Table 32)

Personality and Test Motivation: Dennis must be easy to handle in class, but he may be too obedient for his own good in learning. He tried too hard to do what the "teacher" (experimenter) wanted using the experimenter's speech as a cue, and did not search his own mind for the answer. He showed very little interest in the materials of tasks of the experiment and said very little in order to avoid committing himself. He did finally tell the experimenter at the end of the second session that she was calling him by the wrong name. He resisted Keith's determined attempts to get the advantage over him in a competitive game and reproved Keith for repeatedly asking to keep things, but he didn't raise his voice or assert himself. In a later session Keith referred to "That little boy who was here with me" as though he weren't aware of Dennis's name. Dennis was small and not very impressive looking. He was reluctant to guess, wanted confirmation, was trying to follow what the experimenter wanted rather than to figure out the problem.

Language: Dennis's speech was low on standard forms. He used only one attributive possessive, without the Z,

Table 32

Dennis Hollins' Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	100	22		-	50	33
Context-cue	100	77		83	100	85
Oral Reading	97	74		76	100	81
Picture-meaning Oral Pretest	2	0	0	1	0	1
Oral Posttest	2	1	2	2	1	6
Reading Comprehension	2	0	1	2	2	5

Metropolitan: Word Knowledge: 2.6 Reading: 2.1 Age: 7 yr 10 mo

though on his three absolute possessives he did use Z. Yet at a more conscious level in the context-cue test and reading he came much closer to standard. This may have been his effort to obey when the situation clearly required Z. His picture-meaning comprehension was not particularly good on anything except plural and possessive.

School Achievement: The teacher said mostly good things about Dennis as a person but rated him only fair on everything except a good on social behavior. He was a little behind grade level in reading but up to it in word knowledge.

Carol Harlan (Table 33)

Personality and Test Motivation: Carol was more aggressive and exuberant than Nisi in the initial interview. She read aloud with an attempt at good sentence intonation and seemed proud of her skill. She wanted to play the part of the "teacher" (experimenter) in the game. However, when the experimenter confused the names of the two girls, she was apparently afraid to protest directly. She indicated something was wrong but refused to say what and denied it at first when asked directly whether the wrong names had been used. She was anxious always to know what was going on. If the purpose of a question escaped her she was reluctant to answer it.

Language: Carol's low use of the verb Z may be partly due to her relative excitement in the initial interview where she talked more informally than most other children.

Table 33

Carol Harlan's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	76	21		-	85	52
Context-cue	86	44		83	33	50
Oral Reading	89	56		59	92	64
Picture-meaning Oral Pretest	1	0	1	1	0	2
Oral Posttest	2	0	1	2	1	4
Reading Comprehension	2	1	1	2	2	6

Metropolitan: Word Knowledge: 2.6 Reading: 3.6 Age: 8 yr 5 mo

She used the copula quite regularly herself, but had very low scores on the more conscious uses of it. This was probably due to misunderstanding on her part of the point of the context-cue test. On the program it was necessary to decide whether to insert is between a pronoun and a verb or between the same pronoun and the verb with ing ending. She had great trouble and made many mistakes. Whatever prevented her from understanding the point of those and the context-cue questions may also have interfered with her handling of the same form in the picture-meaning test. She was one of only two, however, who correctly stated that the 's on it's meant is. Since she had some trouble on other comprehension tests also in understanding the point of the questions, it seems reasonable to suppose that her troubles are not due to a lack of control of the copula, but simply to inability to see the point of the particular tests used and unwillingness to answer things whose purpose she did not understand.

School Achievement: Carol's word knowledge was well behind her reading, which was almost a year ahead of grade level. Her other school grades were good with excellent for social behavior. Her teacher said her attendance was poor but otherwise made favorable comments.

Kathleen Kilson (Table 34)

Personality and Test Motivation: Kathleen did a lot of fooling around, and she was not intimidated by the experimental situation or by the other children. She liked

Table 34

Kathleen Kilson's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	67	27		60	53	45
Context-cue	100	56		67	100	69
Oral Reading	85	74		60	92	74
Picture-meaning Oral Pretest	1	0	1	1	0	2
Oral Posttest	2	0	2	2	0	4
Reading Comprehension	2	0	1	2	2	5

Metropolitan: Word Knowledge: 2.3 Reading: 2.4 Age: 9 yr 2 mo

to talk and was very willing to sing. She was cautious and attentive in the teaching and testing situations, eager to fill in the blanks in the program, although she didn't enjoy the riddle book as much as some. In general, she was attentive and cooperative without being submissive. She was less assertive than Wilma in the first interview but not afraid to defend herself or ask for what she wanted. Like some others she was a little cowed by parts of the testing that she could not do very well.

Language: Kathleen's spontaneous speech was much less standard than her context-cued responses and her oral reading. She was less skillful than many with the picture-meaning items. During the pretest she seemed not really to see what was being asked until well into the test. For example, in the third item she was still not using the suggested titles to name the pictures. In such cases the experimenter repeated the titles for her, but most children learned quite early to pay attention during the imitation test so as to be able to use the same words in naming the pictures (production).

School Achievement: Kathleen was older than the others and still a little behind grade level in both word knowledge and reading. Her grades were good except for fair in spelling and the teacher's other comments were mostly good. She started school a year or two ahead of the majority, so perhaps she has repeated a grade.

Wilma Cummings (Table 35)

Personality and Test Motivation: Wilma was an aggressive one. She was out for a good time in the experimental sessions, and wanted to do her thing. She told of fights she had had and wanted to sing Kathleen's song again because Kathleen "didn't sing it right." In the program sessions she kept resisting the task and asking for arithmetic to do, but she used every ruse to avoid returning to the classroom afterward and to get every bit of candy reward she could. She was never intimidated or anxious about the work and frequently tried to interrupt it for her own purposes.

Language: Wilma's spontaneous language was more standard than most but she used few verb inflections in the context-cue test, especially on the posttest part. She did fairly well with the picture-meaning items, except for the verb singular.

School Achievement: Wilma was behind grade level in both word knowledge and reading. Her class work was only fair. The teacher described her as aggressive and concerned with sex.

Gloria Evans (Table 36)

Personality and Test Motivation: Gloria was a little stiff at the very beginning of the interview and coached Mark about what he should say. When she relaxed later, she seemed to have a little stutter and had much trouble tripping over language in the comprehension tests. She is

Table 35

Wilma Cummings' Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	81		62	33	93	72
Context-cue	88		28	50	100	50
Oral Reading	88		73	69	88	75
Picture-meaning Oral Pretest	2	0	1	1	2	4
Oral Posttest	2	0	2	2	2	6
Reading Comprehension	2	1	2	2	1	6

Metropolitan: Word Knowledge: 2.3 Reading: 2.2 Age: 8 yr 5 mo

Table 36

Gloria Evans' Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	73	6		0	41	19
Context-cue	86	13		17	86	32
Oral Reading	89	75		57	93	76
Picture-meaning Oral Pretest	0	0	0	0	0	0
Oral Posttest	0	0	1	1	0	2
Reading Comprehension	1	0	1	2	1	4

Metropolitan: Word Knowledge: 2.8 Reading: 1.9 Age: 8 yr 3 mo

an independent person, wanting to do everything her way and resisting instructions. She interrupted frequently with spontaneous talk about irrelevant things. She did the written fill-ins eagerly and was disappointed when there were no more to do. She made up stories to elaborate many of the tasks and pictures, and resisted returning to her class.

Language: Gloria was the least standard speaker in the class. She managed in the context-cue test to do very well with copula contraction but the other dialect-related forms remained very nonstandard. Although she was far behind grade level in reading on the Metropolitan, her oral reading was fairly good except that she was low on verb and possessive Z. She didn't do well with the picture-meaning items, partly because she insisted on doing them her own way, but mostly because she did not really control the forms being tested.

School Achievement: Gloria's school grades were mostly excellent, including reading. Perhaps her low Metropolitan score was the result of her independent way of doing tests. The teacher described her as shy, (a trait the experimenter did not observe) and said that her home life interfered with her getting proper sleep.

Henrietta Turner (Table 37)

Personality and Test Motivation: Henrietta came to the experiment in an exuberant mood, but lost it promptly when she was faced with a test she didn't feel the master

Table 37

Henrietta Turner's Language Scores

Language Measures	Morphemes					
	Plural	Verb		Possessive	Copula	Verb Possessive and Copula
		Singular	Present			
Spontaneous	90	23		-	88	67
Context-cue	88	0		50	91	37
Oral Reading	81	52		44	100	58
Picture-meaning Oral Pretest	2	0	1	0	0	1
Oral Posttest	2	0	2	2	1	5
Reading Comprehension	2	1	2	2	2	7

Metropolitan: Word Knowledge: 2.4 Reading: 2.6 Age: 7 yr 11 mo

of. All the tests gave her trouble. She did not seem to understand what kinds of answers were wanted and never fell into the required patterns. This frustrated and subdued her. On the plural part of the program she was happy because she felt confident of what she was doing. When it came to the rest of the program, however, she did not seem to catch on to what she was supposed to be learning in spite of the fact that she had clear control of the copula in spontaneous speech and on the tests of it.

Language: Henrietta did not use the verb Z either spontaneously or in the more conscious context-cue test, and she was below average in oral reading of it as well. Her copula was well above average in everything except the picture-meaning test. It is interesting that she did better comprehending the verb present meaning than the other two morphemes which she used in the much more standard fashion.

School Achievement: Henrietta was just a little below grade level in word knowledge and about at grade level in reading by the Metropolitan test. Her school grades were good except "fair" in reading and writing.

William Hunt (Table 38)

Personality and Test Motivation: William was a behavior problem in class, so much so that he had to be suspended from school during the experiment. In the initial interview the teacher sent him down with Larry, another disturbed child, who was his occasional sidekick. William

Table 38

William Hunt's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	100	27		57	59	48
Context-cue	100	57		83	50	61
Oral Reading	60	35		27	56	37
Picture-meaning Oral Pretest	2	1	1	2	0	4
Oral Posttest	2	1	2	2	1	6
Reading Comprehension	2	0	1	1	2	4

Metropolitan: Word Knowledge: 1.7 Reading: 1.9 Age: 7 yr 7 mo

dominated over Larry, who accepted his domination at least sometimes. William was very defensive over his reading, which was way below grade level. He tried to avoid reading and whined that he couldn't rather than making the attempt. The reading tests were all rewritten for him so as to be easier. During the individual experimental sessions he resisted frequently and agreed to continue the procedure only in order to avoid returning to the classroom. Larry joined him in one of these sessions without authorization from the teacher (who could not always control Larry). William used Larry to fool around and at one point refused to go on with the experiment until it was a question of returning to class. Larry interfered considerably.

Language: William's language was a little less standard than average except that he had a little better control of the possessive in the context-cue and picture-meaning tests than most. His low reading level brought down the averages on oral reading.

School Achievement: William's general class work was unsatisfactory, except that he got a "good" in oral language. His teacher said his behavior was unsatisfactory in getting along with others and self control, and that he required an unreasonable amount of attention. She called him aggressive, but believed he was bright. She appreciated his excellence in art and gave him every opportunity to use this ability in class. His mother, frequently called to school about his behavior, was defensive about it and

apparently unable or unwilling to control him.

Grace Terrell (Table 39)

Personality and Test Motivation: Grace was very lively and talkative. She was determined to enjoy the sessions and did. She kept up a running comment and elaboration on all the tests and program, volunteering the names of the pictures before she was asked, but not always correctly. She volunteered explanations of why her answer was correct and why "won" and "one" were different words. Interviewed with Ola Mae, she was dominant and not above putting Ola Mae down about her "countrified" speech, to Ola Mae's embarrassment.

Language: Grace's spontaneous speech was very close to standard especially when she was trying hard as in the context-cue test. Her oral reading was also correct and her picture-meaning comprehension quite good on all but the verb singular.

School Achievement: She was ahead of grade in word knowledge and well ahead in reading on the Metropolitan, although she was younger than the majority of those in the class. She was rated good in all school subjects and the teacher's only other comment was that she was talkative.

Mark Tyler (Table 40)

Personality and Test Motivation: Mark's manner was one of quiet formality. He was interviewed first with Gloria, who set a pattern of fairly formal language and coached him a little when he was speaking. He accepted

Table 39

Grace Terrell's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	98	81		75	90	85
Context-cue	100	100		83	100	97
Oral Reading	100	96		92	83	92
Picture-meaning Oral Pretest	2	0	2	2	0	4
Oral Posttest	2	0	1	2	2	5
Reading Comprehension	2	0	2	2	2	6

Metropolitan: Word Knowledge: 3.0 Reading: 3.6 Age: 7 yr 8 mo

Table 40

Mark Tyler's Language Scores

Language Measures	Morphemes				
	Plural	Verb		Possessive Copula	Verb Possessive and Copula
		Singular	Present		
Spontaneous	100	43		40	95	66
Context-cue	88	47		100	88	69
Oral Reading	91	93		80	100	91
Picture-meaning Oral Pretest	2	0	2	1	1	4
Oral Posttest	2	0	2	2	1	5
Reading Comprehension	2	1	2	2	2	7

Metropolitan: Word Knowledge: 3.0 Reading: 2.8 Age: 8 yr 1 mo

her instructions as he also did the experimenter's. He became even quieter and more formal when he found the task difficult but was always apparently willing to come and do his best. He was fearful of expressing himself but appreciative of the attention and expressed his thanks politely. One morning he met the experimenter on the way to school. He promptly left the group of boys he was with to say, "Hello," and took the experimenter's hand to walk the remaining block to school, talking contentedly all the way and excusing himself politely when he had to go in another door of the school.

Language: Mark's spontaneous speech was close to average on all the morphemes studied and his context-cue performance was similar to it except that his possessive use was much higher. His oral reading of the morphemes was a little better than average as was his score on the picture-meaning test. On the Metropolitan he was above grade level on word knowledge and slightly above on reading.

School Achievement: Mark's teacher described him simply as "a pleasure." He was "good" in everything, a little behind in reading and excellent in writing.

VI Other Spontaneous Usages

Questions

In forming standard English questions the so-called "flip-flop" rule is normally applied, reversing the normal declarative position of the subject and auxiliary. For example,

Can I play two games?

Is this your same room?

Do you like microphones?

What is a fair fight?

What do angels do?

The children in our group, however, often omit the flip-flop rule in forming their questions, using declarative word order and only a change in intonation or a Wh word to mark the question.

You wrote all this?

That's right?

What they did?

Table 41 shows the proportion of their questions in which the rule is clearly applied out of the total number of questions where it would be applied in Standard English. The questions are divided into Yes-No and Wh types and classified by the kind of auxiliary used, since the results showed that this was clearly a relevant variable. Only 60 (29%) of the 210 yes-no questions were formed with a flip-flop rule. Of these flip-flopped questions, two-thirds involved the modal auxiliary "can" or "could," so that 87% of the modal questions as compared to only 13% of the non-modal auxiliaries were flip-flopped. The difference between the proportions for modal and for all other auxiliaries is significant at the .001 level of confidence. By contrast about half the Wh questions were flip-flopped, a proportion significantly greater than that of yes-no

Table 41

Percentage of Questions Showing Use of Flip-flop Rule

	Auxiliary					
	Can or could	Copula	Do	Other	Copula Do or Other	All
Question	Harlem Group (Black)					
Yes-no	87 (39/45)	07 (4/61)	17 (13/79)	14 (4/28)	13 (21/165)	29 (60/210)
Wh	100 (3/3)	68 (39/57)	31 (12/39)	29 (2/7)	51 (53/103)	53 (56/106)
	New London Group (White)					
Yes-no	100 (7/7)	100 (3/3)	80 (12/15)	-- (1/1)	84 (16/19)	88 (23/26)
Wh	-- (0/0)	100 (16/16)	100 (12/12)	-- (0/0)	100 (28/28)	100 (28/28)

questions. This difference may reflect the fact that yes-no questions with subject and auxiliary in declarative position are more acceptable in Standard English than Wh questions without a flip-flop. It is the normal form of questions asking for confirmation. However, a sample of questions from a group of white second graders in a predominately white middle-class school in New London, Connecticut, showed very few such questions. Table 41 shows that out of a total of 54 questions only 3 (2 of them confirmation questions) failed to employ the flip-flop rule:

You don't know what fiddling around means?

You don't know what summer camps are?

You know how big those are?

The difference between these black and white children in proportion of flip-flop questions other than those employing the modal auxiliary is significant at the .001 level both for yes-no and Wh questions, the white group using the rule more often.

The fact that the auxiliary must also carry the tense inflection and the negative morpheme clearly influences our subjects' tendency to use it in questions. Of the 13 questions in which our black subjects used the Standard English "do" or "did," 10 were in the present tense, 36% of the clearly present-tense "do" questions. The three past-tense flip-flops were only 8% of all the past-tense "do" questions. In the six cases where the question was negative so that "don't" was required, our subjects never

used the flip-flop rule. Of the white children's three non-flip-flopped questions quoted above, two also involved "don't" rather than "do." It seems possible that "do" carrying a past-tense ("did") or negative morpheme ("don't") is less movable grammatically than present-positive ("do").

Invariant be

It is reported by linguists (e.g., Labov, 1968) that Nonstandard Negro English uses be in invariant form as a copula in situations where the meaning is a usual event. If we add also the situation where a background condition is referred to, we can report that our observations are consistent with these linguists' findings. For example,

What you doin' when you be in that room?

It be like dat.

If dey be in de game ....

Sometimes it is possible to interpret this usage as occurring because of an inaudible will in will be, for example

My sister be asleep ... My mother be awake, you know, she'll still be awake.

In this series of utterances from one of our subjects who was talking about something that happens every Wednesday night, the will is clearly audible toward the end, suggesting that its absence might be due only to a phonological rule deleting the terminal /l/ which is the contraction of will. This use of will has a meaning of regularity, related to the future only in the sense of

being predictable. Although most of our instances of the invariant *be* allow for this interpretation, there are times, as in the first examples given, when it is difficult to interpret the invariant *be* as part of *will be*.

Ten of our subjects used this invariant *be* and only the one quoted above ever expanded it into *will be*. In all cases reference was to a usual event or condition. To determine whether these 10 had relatively nonstandard speech, we compared their mean percentage use of the three dialect-related sibilant morphemes with the mean for subjects who did not happen to use *be*. Users of *be* averaged 49%, and non-users 63%. This difference is not statistically significant. If we eliminate that one subject whose *be* was later converted into *will be*, the difference becomes 40% to 64% and is significant at the .01 level. However, there seems to be little justification for eliminating him, since most of the uses of *be* by the others are interpretable as *will be* in the same sense of regular, not future events.

Negative Concord

Labov (1968) reports that black nonstandard speakers almost invariably form negatives by what he calls concord, that is, negative morphemes at all possible places in the sentence rather than the standard "negative attraction" in which only one negative at the beginning of the series applies throughout. Our subjects confirm his finding in their spontaneous speech with sentences like

I don't have nothing.

Nobody can't beat nobody.

Labov reports that white nonstandard speakers occasionally use negative attraction, which might produce instead of the above

I don't have anything.

Nobody can beat anybody.

Twenty-two of our 27 subjects used at least one negative sentence containing indefinites and all of these followed the negative concord rule. No examples of negative attraction occurred in any of our observations.

VII Other Tests

Repetitions

Labov (1968) found that teenagers, when asked to repeat a standard sentence after hearing it, often converted standard into nonstandard forms and in some cases were unable even with much effort to reproduce the standard original. Our second graders repeated after the experimenter many short phrases during the imitation part of the comprehension experiment and in addition there was a game in which they repeated longer sentences. We have classified separately the repetitions of phrases and sentences less than seven morphemes long and the longer ones. In addition, several nonstandard sentences were presented to some of them to see whether they would ever convert them into the corresponding standard forms. Table 42 shows proportions of responses in Standard English forms under these different

Table 42

Comparison of Repetition Data and Spontaneous Speech

Percentage of Standard English Responses

	Morphemes					
	Plural	Verb	Possessive	Copula		Verb Possessive and Copula
				Is	Are	
Spontaneous speech	93	44	55	79	47	64
Repetition						
Shorter model	94	92	94	90	-	92
Longer model	95	80	68	73	72	74
Nonstandard model	-	24	19	-	48	29

stimulus conditions and in spontaneous speech. There were very few errors in the repetitions of shorter models, and although there were more errors in longer sentences, even there over three-quarters of the repetitions were correct standard forms, considerably more than in the spontaneous speech of the same children. Even some nonstandard sentences were "corrected" to standard more than one-fourth of the time, in spite of the fact that the instructions called for exact repetition of the sentence as given, in other words, for nonstandard responses to those sentences. (White college students, given sentences with the same Negro nonstandard forms and the same instruction, corrected to standard English slightly more often than these children on most morphemes and much more often on the possessive.)

Beside the contrasting forms studied in our experiment, a number of other standard forms were tested, all sentences being modified from those used by Labov by inserting names of children from the class. Several of these are worth examining.

The following sentence was designed to test ability to repeat standard negative attraction:

None of us ever have any candy in school.

Using the negative concord rule, as all of our children did exclusively in their spontaneous speech, this would be

None of us never have no candy in school.

Three kinds of "repetitions" of these standard forms

occurred among our respondents. The indefinites (ever, any) were repeated correctly, or they were simply omitted, or they were converted to negatives. Table 43 shows that a considerable number of subjects were uncertain enough of the standard indefinite forms that they either evaded the problem by omitting the indefinites or made them negative in conformity with the negative concord rule. They were much more likely to convert "ever" into "never" than to convert "any" into "no" in this sentence, however. Each of the standard indefinites was retained by more than half the 27 respondents but only about a third retained both indefinites. No one converted both to negatives in full accord with the concord rule.

Labov also found that his subjects often converted standard embedded yes-no questions into nonstandard form in trying to repeat them. A sentence such as,

Ask Rodney if he has ever eaten spaghetti.

would often be repeated as

Ask Rodney has he ever eaten spaghetti.

We asked our 27 subjects to repeat four such sentences and found that they correctly repeated the standard about 77% of the time. It was not possible to make a systematic comparison with their spontaneous speech since only two of the subjects had happened to use the standard "if" form in their spontaneous speech samples and only three had used the nonstandard form. These individuals' spontaneous forms, however, did not predict their performance

Table 43

Percentages of Various Responses

to a Standard Negative Sentence with Two Indefinites:

"None of us ever have any candy in school."

	Type of response		
	Standard	Omitted	Nonstandard
First Indefinite	61 (ever)	14	25 (never)
Second Indefinite	70 (any)	28	02 (no)
Both Indefinites	35 (ever+any)	02	00 (never+no)

on repetitions.

Nominalizations

Our subjects performed another task designed to assess their skill with language and to compare the difficulty of several grammatical transformations involved in the formation of noun phrases in English. It seems likely that the ability to form various kinds of noun phrases is especially important in the way educated people use language. Our nominalization task was done with 24 of our subjects in the third experimental session when the experimenter was no longer a stranger. The experimenter began by asking, "What do we call a bear that has fuzz?", adding if necessary, "A what-kind-of bear?" Most replied "A fuzzy bear" or "A fuzz bear." After some preliminary practice, two series of such test questions were given to each child. One set required transforming verbs into adjectives ending with "-ing"; the other set required transforming verbs into nouns ending in "-er." Two alternate forms, including preliminary practice items, using the same sequence of verbs but reversing the order of the two transformations, were as follows:

Form A: What do we call:	Form B: What do we call:
someone that runs (a runner)	a nun that flies (a flying nun)
someone that works	a nun that works
someone that sells	a nun that sells
someone that sells apples	a nun that sells apples
someone that makes shoes	a nun that makes shoes

someone that rides on a bus	a nun that rides on a bus
a nun that flies (a flying nun)	someone that runs (a runner)
a nun that sails	someone that sails
a nun that plays	someone that plays
a nun that plays cards	someone that plays cards
a nun that climbs mountains	someone that climbs mountains
a nun that skates on the ice	someone that skates on the ice
a nun that sits on a flagpole	someone that sits on a flagpole

Results

Each percentage shown in the following tables represents between 20 and 50 scorable responses. Table 44 shows that it is harder to convert verbs into gerundive adjectives ("-ing") than into agentive nouns ("-er") and that this is especially difficult when a noun must be handled as part of the same phrase. However, Table 45 shows that it is not the noun as such that causes the low scores for noun-verb combinations. The nouns are much more likely than the verbs to be present and in the correct form in the response. With "-er" endings, verbs are transformed approximately as well as nouns, but with "-ing" endings, the verbs are clearly more difficult to handle than nouns and more difficult with than without an additional noun in the verb phrase, especially a direct object.

Table 46 shows the specific changes that are made by the transformational rules, though it does not pretend to be a formal statement of the rules or the order in which they are applied. The first and last changes listed are

Table 44

Percentage of Completely Correct Responses for Various Verb Phrases

	Verb transformation	
Type of original phrase	"-ing"	"-er"
(Potentially) transitive verbs without objects	48	72
Transitive verbs with objects	2	54
Intransitive verbs without modifiers	54	67
Intransitive verbs with locative phrases	3	36

Table 45

Percentage of Correct Elements in Partially or Wholly Correct Responses

Type of Response	Verb transformation involved "-ing"	"-er"
Transitive verbs with objects		
Noun in correct form	60	67
Verb in correct form	8	69
Intransitive verb with locative phrase		
Noun from locative phrase in correct form	70	67
Verb in correct form	18	56

Table 46

Percentage of Times Relevant Words are Handled Correctly

Out of Total Times They Appeared in the Response

Specific transformed word(s)		Verb transformation involved "-ing"	"-er"
Original form	Transformed		
"plays"	to "playing" or "player"	13	73
"nun playing cards"	to "playing cards nun" and "playing cards" to "cards playing"	8	
"player cards"	to "cards player"		72
"cards"	to "card"	72	85

the morphological ones. The other changes are in word order. It appears that the transition from

NUN that PLAYS CARDS to CARDS PLAYING NUN

that is, the changes in verb inflection and in word order are the difficult parts of the total transformation.

The relation between skill on this test and other verbal performances is suggested by a rank order correlation of .49 ($p<.05$) between individual scores on this nominalization task and the scores on the Metropolitan Achievement Test, which measures reading and word knowledge. Use of dialect-related morphemes had a rank order correlation of .50 ($p<.05$) with the nominalization score, that is, those who spoke the most Standard English had the highest nominalization scores. [The correlation between dialect use and the Metropolitan was not significant, however. (Rho=.29, $p>.05$).]

Implications and Conclusions

By forming these noun phrases, the children were demonstrating a fairly elaborate grasp of the grammatical structure of English. The results show that when more changes are required in a transformation, the task is less often done successfully. They also suggest that certain of the changes are much easier than others. Hunt (1971) found that older children and more accomplished writers used more and longer clauses (mostly expanded by the use of noun phrases) than did younger or less accomplished writers. This implies that there is some pedagogical

importance to these particular grammatical skills, and it seems quite possible that a drill similar to the task used in this experiment might help in the acquisition of such transformational skills.

The relation between nominalizing ability and tendency to use nonstandard grammatical forms suggests two quite different interpretations. The first is that children who use nonstandard forms more often in school are those who have lower grammatical ability generally, since they have learned less of the school dialect. The lack of a significant correlation between dialect use and the Metropolitan weakens this hypothesis. A second possibility is that certain transformations into standard forms (our "correct" noun phrases) are more difficult for those who speak Nonstandard Negro English. We may have selected nominalizations that are harder in their language. Confirmation of this hypothesis will have to wait upon more evidence about what makes a transformation difficult.

VIII New London Comparison Sample

In order to assess the specific effects of speaking a nonstandard dialect upon our various language measures, it is necessary to test standard-speaking children of the same age. Members of a second grade class in a predominantly white middle-class school in New London, Connecticut served as a comparison group. Data are presented for white children only. The spontaneous speech of a randomly selected half of the class was collected in the same manner

as the Harlem speech, interviews during school hours with pairs of children. The other half of the same class was given the context-cue and the picture-meaning tests. Since the training and retest part of the experiment was omitted, these data are comparable only to the pretest results in the Harlem sample. A fourth grade class from the same school was given the picture-meaning and context-cue tests, and, in addition, both classes took a new test of explicit grammatical knowledge of the same morphemes.

Comparison Data on Speech and Comprehension

Spontaneous Speech: Table 47 shows that these white middle class second graders use all four of our sibilant morphemes almost 100 per cent of the time. All three dialect-related morphemes are used significantly more often by them than by the Harlem sample. This confirms that children of this age who are exposed to Standard English in all aspects of life have mastered the use of these particular morphemes and use them more regularly than the children who are also exposed to a dialect that does not include them.

Context-cue Test: A more formal test of morpheme use was our context-cue test, a series of questions designed to elicit utterances that require each morpheme. Table 48 shows the mean percentage of appropriate utterances where the sibilant morphemes were used by all groups. The white second graders use all the morphemes most of the time. The fourth graders come a little closer to 100%, but the

Table 47

Spontaneous Speech and Black and White Children

Mean Proportion of Appropriate Occasions Where S is Used

Group	Plural	Verb	Possessive	Copula	Verb Possessive and Copula
Black (N=27)	92	40	53**	72	58
White (N=15)	99	99	98*	99	99
t	0.69	8.96	4.54	4.29	7.16
p	>.05	<.001	<.001	<.001	<.001

*N=14

**N=17

Table 48

Context-Cue Test Scores of Black and White Children

Group	Plural	Verb	Possessive	Copula	Verb Possessive and Copula
Black (N=27)	93	37*	61*	78	59*
White					
Second Grade (N=15)	93	93	97	93	94
Fourth Grade (N=18)	97	100	100	97	99

*Significantly different from White Second Grade, $p<.001$.

differences between them are not significant. The Harlem group, however, produce the dialect-related morphemes less often. The differences between white and black second graders are significant for verb ending, possessive, and for all dialect-related morphemes together.

Picture-meaning Test: The test (described in section I above) involving matching pictures to the meanings of the morphemes requires something much closer to explicit grammatical knowledge than spontaneous production in ordinary speech and in our context-cue test. The difficulty of the test, however, makes less-than-perfect scores likely even for someone who normally uses the form spontaneously. Table 49 shows the scores in terms of mean number correct out of two items given each child. The order of difficulty of the different morpheme tests is the same for both groups of second graders, but the children who use these morphemes in their daily language also show significantly greater comprehension on all except the plural, which is well understood by both groups. The white fourth graders do a little better than the white second graders on each morpheme but the difference reaches significance only in the case of the total score for all the morphemes including the plural.

Discussion

The spontaneous language data from the white comparison group serve to establish the fact that children in the same grade as our Harlem sample conform much more closely

Table 49

Picture-Meaning Test Scores of Black and White Children

	Morphemes						
Group	Plural	Verb Singular	Verb Present	Possessive	Copula	Verb Possessive and Copula	All Morphemes
Black (N=27)	1.9	.1	1.2	1.3	.4	2.96	
White							
Second Grade (N=15)	1.9	.9	1.7	1.8	1.2	5.53	7.40
Fourth Grade (N=18)	2.0	1.3	1.7	1.9	1.7		8.67
Maximum Score	2.0	2.0	2.0	2.0	2.0	8.0	10.00
t*	1.34	4.55	2.15	2.69	3.16	4.59	2.19**
p	>.05	<.001	<.05	<.01	<.01	<.001	<.05

*t test of the difference between Black and White second graders

**t test of the difference between White second and fourth graders

to adult Standard English than do the black children who are exposed to another dialect. It is safe, then, to attribute the deviations from Standard English shown in the black children to cultural context rather than simply to their age. The results of the picture-meaning test in the white sample also serve as a base line, showing what we have a right to expect on this test from children who speak Standard English. Since the black children scored significantly lower than white only on the morphemes they tend not to use themselves, it appears that dialect is the main factor in their comprehension difficulties. This conclusion is consistent with the fact that dialect instruction also had a significant influence on picture-meaning comprehension for these black children.

IX Grammatical Knowledge

In the Harlem experiment explicit grammatical knowledge of sibilant morphemes was tested by giving the children two typed sentences containing the forms with the "s's" in red and simply asking for each one what it meant. It is reported in Section II that most of the children were able to interpret the plural very well, but there were few correct answers on any other morphemes. This may reflect the children's lack of adquate grammatical vocabulary as well as the abstractness of the necessary concepts. It seemed possible that if the questions could be given some more concrete referents in the test itself, then more explicit answers could be obtained. Therefore

a new test was designed using the same pairs of pictures and phrases as the picture-meaning test of comprehension of the morphemes. The picture-meaning test was administered first in the normal oral form, and then, one pair of pictures for each morpheme was presented again along with typed cards showing the two phrases with the crucial s in red. The child was asked to put the cards on the appropriate pictures (the reading comprehension form), and then, with the phrases under the correct pictures before him, he was asked by the experimenter, "Now, what does the red s tell you? How do you know the one with the red s goes with this picture?" The pictures made the distinctive meaning of the s more visible and thus gave a more concrete meaning to the question as well as a clue as to how to answer. The picture test was given to a second and a fourth grade class in a predominantly white middle-class area of New London, Connecticut.

Tables 50-55 show the various kinds of answers made to both the Harlem and New London versions of the test. The scores of the two groups of subjects cannot be directly compared, of course, since not only the test but the dialects spoken by the children are different, and either or both of these differences may contribute to the difference in responses. To the extent that the results are similar, however, they may be of interest and are therefore shown together. The New London version was given in the same way to both second and fourth grades and thus

Table 50

Responses of Various Kinds to Grammatical Questions: Plural

Harlem Test

Example: The dogs eat the cat's food. The cat says it's hers.

Question: What does the s on dogs mean in The dogs eat . . . ?

New London Test

Example A: The puppy opened the door. The puppies opened the door.

Example B: The boy ate lunch. The boys ate lunch.

Question: What does the red s tell you? How do you know the one with the red s goes with this picture?

	Groups		
	Harlem	New London	
Kinds of responses and samples	2nd Grade	2nd Grade	4th Grade
Plural	21	13	18
Both puppies opened the door, not one.			
There's more than one puppy eating lunch.			
Percentage Correct	84%	87%	100%
Other S Morpheme Meanings			
Past Tense			
They have eaten already.	0	2	0
Descriptive			
It's a s on it.	4	0	0

Table 51

Responses of Various Kinds to Grammatical Questions:

Verb Singular

Harlem Test

Example: The dogs eat the cat's food. The cat says it's hers.

Question: What does the s on says mean in The cat says . . . ?

New London Test

Example A: The cats sleep. The cat sleeps.

Example B: The deer drink. The deer drinks.

Question: What does the red s tell you? How do you know the one with the red s goes with this picture?

	Groups		
	Harlem	New London	
Kinds of responses and samples	2nd Grade	2nd Grade	4th Grade
Singular Only one cat is sleeping. He's the only one drinking.	0	9	15
Percentage Correct	0%	60%	83%
Repetition He says it.	4	0	0
Other S Morpheme Meanings			
Plural More than one.	6	0	0
Present Tense The deer is drinking. He sayin' something.	2	3	3
Possessive He's telling the dog that it's his food.	1	0	0
Descriptive It got a s on the end.	1	1	0
Other Incorrect I don't know.	2	2	0

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Table 52

Responses of Various Kinds to Grammatical Questions: Verb Present

Harlem Test

Example: The dogs eat the cat's food. The cat says it's hers.

Question: What does the s on says mean in The cat says . . . ?

New London Test

Example A: She put a pot down. She puts a pot down.

Example B: He shut it. He shuts it.

Question: What does the red s tell you: How do you know the one with the red s goes with this picture?

	Groups		
	Harlem	New London	
Kinds of responses and samples	2nd Grade	2nd Grade	4th Grade
Present			
With Adverb She's still putting the pot down.	0	8	11
With Progressive Form Only She's doing something.	2	6	7
Percentage Correct	12%	93%	100%
Repetition He says it. (sayz)	4	0	0
Other S Morpheme Meanings			
Plural More than one. Says more than one thing. The cats . . . more than one says.	6	0	0
Possessive He's telling the dog that it's his food.	1	0	0
Descriptive It got a s on the end . . . says.	1	0	0
Other Incorrect It means to say it loud. Meow. You know a cat that say "Meow"?	2	1	0

Table 53

Responses of Various Kinds to Grammatical Questions: Possessive

Harlem Test

Example: The dogs eat the cat's food. The cat says it's hers.

Question: What does the 's mean on cat's in the cat's food?

New London Test

Example A: The man teacher. The man's teacher.

Example B: The boy angel. The boy's angel.

Question for S Form: What does the red s tell you? How do you know the one with the red s goes with this picture?

	Groups		
	Harlem	New London	
Kinds of responses and samples	2nd Grade	2nd Grade	4th Grade
Possessive Man's . . . so that would be his teacher. The boy has the angel. The angel belongs to the boy. . . . they have . . . food.	0	2	15
Distinguish Two People It's a different type of person teaching. He's sitting down and . . . learning something.	0	5	2
Percentage Correct	5%	47%	94%
Repetition She is the man's teacher. It's the cat's food.	2	6	1
Other S Morpheme Meanings			
Plural Two cats food. A lotta cats and they have a lotta food.	13	0	0
Copula It mean is.	1	0	0
Other Incorrect	3	2	0

Table 54

Responses of Various Kinds to Grammatical Questions:

Possessive Alternate

New London Test

Example A: The man teacher. The man's teacher.

Example B: The boy angel. The boy's angel.

Question for ∅ Form: What does the red s tell you? How do you know the one without the s goes with this picture?

	Groups		
	Harlem	New London	
Kinds of responses and samples	2nd Grade	2nd Grade	4th Grade
Identity	-	7	15
The man is the teacher.			
The angel is a boy.			
The man is teaching up front.			
Repetition	-	4	2
He's just the boy angel.			
Other S Morpheme Meanings			
Plural	-	3	1
Only one boy. You shouldn't put no s.			
Possessive	-	1	0
Because the big angel has a little boy.			

Table 55

Relation between Picture-Meaning Comprehension and Grammatical Knowledge of Possessive

Grammatical knowledge response	Picture-Meaning Comprehension	
	Both Correct	Error(s)
Correct	7	0
Incorrect	5	3

represents a controlled comparison of two ages.

Several kinds of answers were received, some clearly scorable as correct or incorrect and others ambiguous. The first line of each table shows the answers that are most obviously correct grammatical statements of morpheme meaning. This is followed by any answers that represent part of the meaning and by answers that consist of repetitions of the same forms asked about. Repetition could mean that the child understood the morpheme but was unable to express it in different terms. On the other hand, it does not provide clear evidence of understanding. Two other distinct categories of answers that are clearly wrong are first those that interpret the s as having the meaning of some other s morpheme (s's are most frequently misinterpreted as plurals), and, second, answers we have called "descriptive," which seem to explain the s in terms of sound-symbol presentation, the s simply representing the fact that the s sound is in the word with no reference to its meaning. Such an answer implies failure to understand the question.

Plural: Table 50 shows that the plural ending is well understood by all groups of children. The two dialects represented both include this morpheme and in addition it has a concrete, easily expressed meaning. The Harlem children who failed this question tended to resort to descriptive answers, perhaps misunderstanding the question, while the New London second graders who missed it

may have taken The boys ate to mean The boy has ate.

Verb Singular: In the case of the verb inflection, to show recognition of its singular meaning it is necessary to say that the s on the end means "only one," the opposite of the meaning of an s on a noun. The Harlem children simply never said this (see Table 51) whereas a majority of both New London groups did. It is tempting to attribute this difference primarily to the fact that this inflection is missing in the Black dialect, but several other facts suggest caution with this interpretation. The New London test had two pictures, one showing a single cat (or deer) doing something and the other showing more than one. The answer "Only one" could have been more determined by the obvious difference in the pictures than by specific understanding of the s morpheme, since the question was "How do you know the one with the s goes with this picture?" In the case of the cat picture, one phrase card contained the word cats and the other cat. One child explained clearly how he made the decision:

E: Why did you put this one (cat sleeps) with the green picture?"

S: "'Cause s here on cats means more than one cat is asleep."

E: "Why did you put this over here with the red s (sleeps)?"

S: "For the same reason. I started with this one (cats) and ended up with that one, so I knew it had to be that one."

Although he was the only one who made it explicit, it was

obviously possible for those who received the cats item to match by elimination and then answer the question on the basis of the pictures without seeing any connection with the verb ending. This possibility is further suggested by the fact that those who received the alternate deer item instead, where there was no extra clue to number in the plural, accounted for all but two of the incorrect answers. In the comprehension test where the children had to select the correct picture to match the phrase "The cat sleeps" (pronounced so as not to reveal the s on cats) many failed who later "passed" this version of the grammatical knowledge test. It is fair to be suspicious of "knowledge" stated in words that is not accompanied by the ability to match the pictures and phrases correctly. There was no correlation between results on the comprehension test and the grammatical knowledge test on this morpheme.

The pattern of errors may also reflect dialect in that the white children tend more often to give answers that suggest they interpret the s as meaning present tense, in other words, they respond to it as being associated with the verb meaning. The Harlem children, who often do not put s's on verbs, tend to guess other kinds of meanings such as plural.

Verb Present: Understanding of the present tense meaning of the verb inflection (shown in Table 52) was tested by a separate set of pictures (those contrasting tense meaning) in the case of the New London group. The

Harlem responses are simply reported again for the same question used in testing singular meaning. The pictures again make it much easier to answer in terms of tense. Although tense meaning was quite well understood in Harlem, on the comprehension test for tense, only two children explicitly even came as close to that meaning as using the present progressive in their answers. Again it is clear that lack of explicit knowledge does not imply inability to understand a form. Fourth graders are a little more likely than second graders to use adverbs to express the time difference, which is a little more explicit than simply using the present progressive tense. Only one white child failed to give one or the other correct answers on this item.

Possessive: The contrasting phrases used to test meaning of the possessive were of quite different grammatical construction and thus the meanings of the two were asked about separately. Two tables (53 and 54) show the answers for the possessive form and the noun-as-adjective form. The Harlem form of the test yielded almost no explicit statements of possession, the only one being "A lotta cats and they have a lotta food," an answer that was classified primarily as a plural. The Harlem children's overwhelming choice of the plural interpretation in deflance of the picture is in sharp contrast to their relatively good scores on the picture-meaning test of comprehension of the possessive. An

inadequate vocabulary does not completely account for the difference because these children all use words like have and got and his, commonly used to express possession, but for some reason they do not use these words in answering this question. The white children who could not give a clear possessive answer mostly chose either to repeat the possessive form being asked about, e.g., "She is the man's teacher" or to point out that two distinct people are being talked about in contrast to the meaning of the man teacher.

The contrasting phrase with one noun used as an adjective found the fourth graders doing better than the second graders in stating that the two nouns refer to the same person, "The man is a teacher." Several resorted to simply repeating the phrase and a few tried to make the s into a different morpheme. No comparable question was asked of the Harlem children.

Table 55 shows that those who were able to express possessive meaning were more likely to have also selected the correct picture for The man's teacher and The boy's angel.

Copula: In finding phrases identical in sound except for the presence or absence of copula, we were forced to resort to past participles which were homonymous with adjectives. Since these were all spelled differently, we had to use peculiar spelling in presenting

the phrases in writing. However, the children did not protest our explanation of the seeming misprint. It would seem fairly easy to interpret the contracted copula simply by giving the full form is, and the majority of white children did. However, not all second graders gave this answer (see Table 56) and only two in Harlem even though they all use both is and its contraction in their own speech. The Harlem children use it less consistently, but their comprehension is 76% correct in selecting the correct picture to mean, for example, The duck's red. Black children always pronounce the s in it's in their ordinary speech, but usually omit the t. The resulting "iss" may be harder for them to perceive as two words, especially when for them the is is optional. The white children were asked the grammatical question about contracted copulas following nouns, so their task of segmenting the two words was easier. Nevertheless the white second graders often interpreted the 's as another morpheme as did the Harlem children for "The duck's red." The reading "The duck has read" (past tense) or "The ducks read" (plural) are perfectly possible in Standard English, although neither is reflected in the picture contrast. The possessive interpretation does not fit either pictures or phrases exactly.

Enough errors occurred both in comprehension and grammatical knowledge of the copula to make a comparison

Table 56

Responses of Various Kinds to Grammatical Questions: Copula

Harlem Test

Example: The dogs eat the cat's food. The cat says it's hers.

Question: What does the 's mean on it's in it's hers?

New London Test

Example A: The boy bluw. The boy's bluw. (Comment added to explain spelling: "We spelled 'blue' ('blew') wrong, didn't we?")

Example B: The duck red. The duck's red. (Comment added to explain "error": "We made a mistake writing 'read,' didn't we?")

Question: What does the red s tell you? How do you know the one with the red s goes with this picture?

Kinds of responses and samples	Groups: Harlem 2nd Grade	New London 2nd Grade	New London 4th Grade
Copula The boy is colored blue. There . . . red duck. It's means it is.	2	9	17
Percentage Correct	13%	60%	94%
Repetition It's hers. Like it's it's.	4	0	0
Other S Morpheme Meanings			
Plural There's more than one ducks. More than one it's.	4	4	0
Past Tense He's all finished when The duck's read.	-	2	0 (2)*
Possessive What is . . . the person that owns it. He's reading his book.	3 (5)*	0	1
Other Incorrect	2	0	0

*The numbers shown in parenthesis are the total number of children who mentioned a given interpretation including some whose response was scored primarily in another category.

showing whether there was any correlation between these two performances. Table 57 shows that those who were able to select the correct picture for The duck's red and The boy's blue were usually able also to say that the 's meant is. This contrasts with the situation for the singular meaning of the verb s where comprehension results were about the same for those who could and could not state the meaning of "only one."

Discussion

Table 58 summarizes the percentages of correct explanations of the meanings of five morpheme meanings. The plural and the present tense appear easiest to express, but fourth graders succeeded well on all five. Substantial numbers of second graders, also, managed to give answers that were clearly correct when the picture-contrast test was used. Substantially lower percentages on all but the plural morpheme in the Harlem study may reflect in part the substantially lower use of these morphemes among black children, but it seems likely that an important factor in the difference is the lack of as much concrete assistance from the pictures in identifying the crucial contrasting meaning. That many of them understood the morphemes in that they were able to select the correct picture is shown in Table 59. Inability to put the meaning into words again obviously does not imply complete lack of understanding. Until a comparable test

Table 57

Relation between Picture-Meaning Comprehension and Grammatical Knowledge of Contracted Copula

Grammatical knowledge response	Picture-Meaning Comprehension	
	Both Correct	Error(s)
Correct	7	2
Incorrect	1	5

Table 58

Percentages of Correct Statements of Grammatical Meaning

	Groups		
	Harlem	New London	
Morpheme meanings	2nd Grade	2nd Grade	4th Grade
Plural	84	87	100
Verb Singular	0	60	83
Verb Present	12	93	100
Possessive	5	47	94
Copula	13	60	94

Table 59

Percentages of Correct Choices in Picture-Meaning Comprehension for Black Children

Morpheme meaning	Percentage Correct
Plural	96
Verb singular	57
Verb present	86
Possessive	88
Copula	76

is given to black children, it is not possible to conclude that either black dialect use or the ghetto environment have influenced their ability to verbalize these grammatical meanings.

Although the picture-contrast test seems to make grammatical knowledge more accessible, the results with the singular meaning of the verb s suggest the need for more careful delineation of the source of responses, whether they are derived mainly from the picture contrast or whether they reflect understanding of the morpheme as such.

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